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Changed chart(s) since Disc 23-2009

ADD = Added chart, REV = Revised chart, DEL = Deleted chart.

| ACT | PROCEDURE IDENT | INDEX | REV DATE | EFF DATE |
|---------------------------------|-------------------------------|--------|-------------|----------|
| Moscow, (Vnukovo - UUWW) | | | | |
| REV | AIRPORT BRIEFING (GEN) | 10-1P | 20 ноя 2009 | |
| REV | AIRPORT BRIEFING (GEN CON... | 10-1P1 | 20 ноя 2009 | |
| REV | GOTMA & UMBEG 01A ARRS | 10-2 | 20 ноя 2009 | |
| REV | GOTMA & UMBEG 01B ARRS | 10-2A | 20 ноя 2009 | |
| REV | BITSA, KLIMOVSK & SKURYGIN... | 10-2B | 20 ноя 2009 | |
| REV | BITSA, KLIMOVSK & SKURYGIN... | 10-2C | 20 ноя 2009 | |
| REV | GOTMA & UMBEG 06A ARRS | 10-2D | 20 ноя 2009 | |
| REV | GOTMA & UMBEG 06B ARRS | 10-2E | 20 ноя 2009 | |
| REV | BITSA, KLIMOVSK & SKURYGIN... | 10-2F | 20 ноя 2009 | |
| REV | BITSA & KLIMOVSK 06B, SKUR... | 10-2G | 20 ноя 2009 | |
| REV | IVANOVSKOYE & OKLIT 19A AR... | 10-2H | 20 ноя 2009 | |
| REV | GOTMA & UMBEG 19B ARRS | 10-2J | 20 ноя 2009 | |
| REV | BITSA, KLIMOVSK & SKURYGIN... | 10-2K | 20 ноя 2009 | |
| REV | BITSA, KLIMOVSK & SKURYGIN... | 10-2L | 20 ноя 2009 | |
| REV | GOTMA & UMBEG 24A ARRS | 10-2M | 20 ноя 2009 | |
| REV | BITSA, KLIMOVSK & SKURYGIN... | 10-2N | 20 ноя 2009 | |
| REV | ILS OR NDB/MKR RWY 01 | 11-1 | 20 ноя 2009 | |
| REV | ILS OR 2 NDB RWY 06 | 11-2 | 20 ноя 2009 | |
| REV | ILS OR NDB/MKR RWY 19 | 11-3 | 20 ноя 2009 | |
| REV | ILS OR 2 NDB RWY 24 | 11-4 | 20 ноя 2009 | |
| REV | CAT II ILS RWY 24 | 11-4A | 20 ноя 2009 | |

TERMINAL CHART NOTAMs**Chart NOTAMs for Airport UUWW****Type:** Terminal**Effectivity:** Temporary**Begin Date:** Immediately**End Date:** Until Further Notice

Eff 22 OCT 09 Aksinyino NDB ident chgd to 'AO'.

General Info

Moscow, RUS
N 55° 36.0' E 37° 16.4' Mag Var: 8.7°E
Elevation: 685'

Public, IFR, Control Tower, Customs
Fuel: Jet A-1
Repairs: Minor Airframe, Minor Engine

Time Zone Info: GMT+3:00 uses DST

Runway Info

Runway 01-19 10039' x 197' asphalt
Runway 06-24 9842' x 197' asphalt

Runway 01 (14.0°M) TDZE 632'
Lights: Edge, ALS, Centerline
Runway 06 (58.0°M) TDZE 637'
Lights: Edge, ALS, Centerline
Runway 19 (194.0°M) TDZE 634'
Lights: Edge, ALS, Centerline, TDZ
Runway 24 (238.0°M) TDZE 679'
Lights: Edge, ALS, Centerline, TDZ

Communications Info

ATIS **131.85**
ATIS **125.875** Non-English
Vnukovo Tower **129.0** Secondary
Vnukovo Tower **124.4** Secondary
Vnukovo Tower **119.45** Secondary
Vnukovo Tower **118.3**
Vnukovo Taxiing Ground Control **129.0** Secondary
Vnukovo Taxiing Ground Control **124.4** Secondary
Vnukovo Taxiing Ground Control **120.45**
Vnukovo Taxiing Ground Control **119.45** Secondary
Vnukovo Approach Control **129.0** Secondary
Vnukovo Approach Control **122.3**
Moscow Approach Two Approach Control **124.4**
Moscow Approach Two Approach Control **122.7**
Moscow Approach Three Approach Control **128.0**
Moscow Approach Six Approach Control **125.3**
Moscow Approach Seven Approach Control **131.2**
Moscow Approach One Approach Control **127.2**
Moscow Approach Nine Approach Control **135.9**
Moscow Approach Four Approach Control **123.4**
Moscow Approach Five Approach Control **134.0**
Moscow Approach Eight Approach Control **129.8**
Vnukovo Radar **129.0** Secondary
Vnukovo Radar **126.0**
Vnukovo Radar **124.4** Secondary
Vnukovo Radar **119.45**

Notebook Info

UUWW/VKO 20 NOV 09 10-1P MOSCOW, RUSSIA
VNUKOVO AIRPORT BRIEFING

1. GENERAL

1.1. ATIS

ATIS 131.85
125.87 (Russian)

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. GENERAL

Noise abatement procedures shall be executed by all ACFT.
'AIR GROUND' communication shall be reduced to a minimum during the approach phase, the initial take-off and the climbing phase.
The flight crews must maintain the assigned SID and STAR routes, and in case of deviation from them - immediately join the assigned flight track.

1.2.2. REVERSE THRUST

Reverse thrust power with the exception reverse idle thrust is used for safety reasons only.

1.3. TAXI PROCEDURES

Taxiing on Vnukovo I apron under engines power of not more than 0.42 of the rating.
Taxiing to/from Vnukovo III apron with Follow-me car only.
Taxiing on TWYs 5, 13, 14, 15, B1, B2, B4, B5, M1, M3 and M4 at reduced speed, strictly along centerline.
Taxiing on TWY 14 between TWYs 13 and 15 DAY only when VIS exceeds 2000m, otherwise only towing is allowed.
TWY B3 available only for towing.

1.4. PARKING INFORMATION

Use of Vnukovo I stands 4 and 5 by towing.
When Vnukovo I stands 29A and 29B occupied, use of stands 30 and 31 by towing.
Use of Vnukovo III stands 33 and 34 by towing.
Enter Vnukovo I stands 32 thru 36 and 41 thru 43 by towing.
Vnukovo III stands 21 and 22 to be entered via vacant stands 23 thru 25 and vice versa.
Enter Vnukovo III stand 27 under engines power, when stand 18 vacant.
Enter Vnukovo III stands 1 thru 17 and 28 by towing.
Leave Vnukovo I stands 25 and 26 under engines power of not more than 0.42 of the rating.
Leave Vnukovo I stand 28 under engines power, when stand 29 vacant.
Leave Vnukovo I stand 92 by towing.
Leave Vnukovo I stand 96 under engines power, when stand 74 vacant.
Use of Vnukovo III stands 35A thru 72 by towing.

Leave Vnukovo III stands under engines power as follows:

- Stand 6, when stand 31 vacant
- Stands 7 and 8, when stand 23 vacant
- Stands 9 and 10, when stand 22 vacant
- Stand 17, when stand 28 vacant
- Stands 18 and 28, when stand 27 vacant
- Stand 27, when stand 18 vacant

Leave Vnukovo III stands 29 thru 32 by towing.
Leave Vnukovo III stands 21 thru 26 by towing, followed by taxiing with engines power 0.4 of the nominal.

Leave Vnukovo III stands by towing as follows:

- Stand 6, when stand 31 occupied
- Stands 7 and 8, when stand 23 occupied
- Stands 9 and 10, when stand 22 occupied
- Stand 17, when stand 28 occupied
- Stand 18, when stand 27 occupied
- Stand 27, when stand 18 occupied.

UUWW/VKO 20 NOV 09 10-1P1 MOSCOW, RUSSIA
VNUKOVO AIRPORT BRIEFING

1. GENERAL

1.5. OTHER INFORMATION

Birds in vicinity of APT.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

2.1.1. APPROACH PHASE

Restrictions

Noise abatement procedures shall not apply under the following conditions:

- if RWY is covered with snow, ice, slush, water, mud, rubber, oil or other substances and the friction coefficient at this is 0.4 or less;
- when ceiling is less than 150m or horizontal visibility is less than 1800m;
- when a crosswind component on RWY (including gusts) exceeds 7 m/sec;
- when a tailwind component on RWY exceeds 2.5 m/sec;
- when wind shear is forecasted or reported or a thunderstorm situation is expected.

Great rates of descent, when leaving the holding patterns or the occupied altitude, should be avoided (if possible) directly before the final approach.

The change of flight configuration and speed of ACFT, connected with noise abatement procedures, shall be carried out according to the requirements of the Airplane Flight Manual.

During instrument as well as visual approach, it is prohibited to fly below the ILS GS angle.

No noise abatement procedures shall envisage the increasing of indicated air speed of descent.

A displacement of THR shall not be used as a noise abatement measure.

Landing of ACFT with tailwind component of up to 5 m/sec is allowed under the following conditions:

- RWY is dry or damp;
- friction coefficient is 0.5 or more;
- crosswind component is not more than 5 m/sec.

2.2. CAT II OPERATIONS

RWY 24 approved for CAT II operations, special aircrew and ACFT certification required.

UUWW/VKO 14 AUG 09 10-1P2 Eff 27 Aug MOSCOW, RUSSIA
VNUKOVO AIRPORT BRIEFING

3. DEPARTURE

3.1. START-UP & TAXI PROCEDURES

3.1.1. START-UP

A period of 10 min established additionally to departure time during reconstruction work for towing and engine start-up from Vnuково I apron.

3.1.2. TAXIING

Up to 15 min are established for taxiing and provision of air traffic safety during departure.

3.2. NOISE ABATEMENT PROCEDURES

TAKE-OFF AND CLIMBING PHASE

Noise abatement procedures shall not be executed at the expense of reduction of flight safety, in case of engine failure during take-off and climbing phase.

Restrictions

Take-off with tailwind component up to 5 m/sec is allowed under the following conditions:

- RWY is dry or damp;
- friction coefficient is 0.5 or more;
- crosswind component is not more than 5 m/sec.

A displacement of THR shall not be used as a noise abatement measure.

A change of flight course direction after take-off is permitted only after reaching 1080'(395').

Turns initiated between 1080 '(395') and 1670 '(985') shall be executed with a bank angle not exceeding 15°.

Turns initiated between 1670 '(985') and 3640 '(2955') shall be executed with a bank angle not exceeding 20°.

Turns initiated at or above 3640 '(2955') shall be executed with 25° bank or with angular speed of turn of 3°/sec.

The minimum steady climb speed shall not be less than $V_2 + 10$ KT or less than prescribed in the Airplane Flight Manual if it has greater value.

Maintaining the minimum climb speed is not required if it brings to exceeding the minimum permissible angle of attack.

The reduction of engine power shall not be applied until:

- the ACFT reaches 1480 '(795');
- the established standard power mode enables with MTOW to maintain the established climb gradient of not less than 4% at the above specified speed;
- take-off flight path provides overflying of all obstacles located under the flight path with sufficient clearance both when all engines are operating normally and also taking into account possible engine failure and time period necessary for the rest engines to develop full power.

Noise abatement procedures, which envisage take-off with reduced engine power, shall not apply under the following conditions:

- if RWY is covered with snow, slush, water, mud, rubber, oil or other substances and the friction coefficient at this is 0.4 or less;
- when horizontal visibility is less than 1800m;
- when a crosswind component on RWY (including gusts) exceeds 7 m/sec;
- when a tailwind component on RWY exceeds 2.5 m/sec;
- when wind shear is forecasted or reported or a thunderstorm situation is expected.

UUWW/VKO 14 AUG 09 10-1P3 Eff 27 Aug MOSCOW, RUSSIA
VNUKOVO AIRPORT BRIEFING

3. DEPARTURE

Special take-off and climbing procedures

During take-off from RWY 01 on take-off heading and climbing to not below 1290'(657') with a maximum possible climb gradient proceed to 1.1NM from RWY extremity with further RIGHT/LEFT turn, maintaining speed and banking which provide a flight with radius 1.6NM. When proceeding to GOTMA and BITSA, pass NDB/MKR at or or above 3590'(2957').

After take-off from RWY 06 on take-off heading and climbing to not below 1300'(663') with a maximum possible climb gradient proceed to 2.2NM from RWY extremity with further RIGHT turn, maintaining speed and banking which provide a flight with radius 2.4NM.

After take-off from RWYs 19 and 24 on take-off heading and climbing to 1300'(666')/ 1340'(661') with a maximum possible climb gradient proceed to 2.2NM from RWY extremity with further LEFT turn (RIGHT turn when proceeding to GOTMA), maintaining speed and banking which provide a flight with radius 2.4NM. Passing GOTMA and BITSA shall be carried out at or above FL49.

Climbing phase

The flight crews shall apply two noise abatement procedures during climbing phase: NADP1 or NADP2 (ICAO Doc 8168, Volume 1, Part V, Chapter 3).

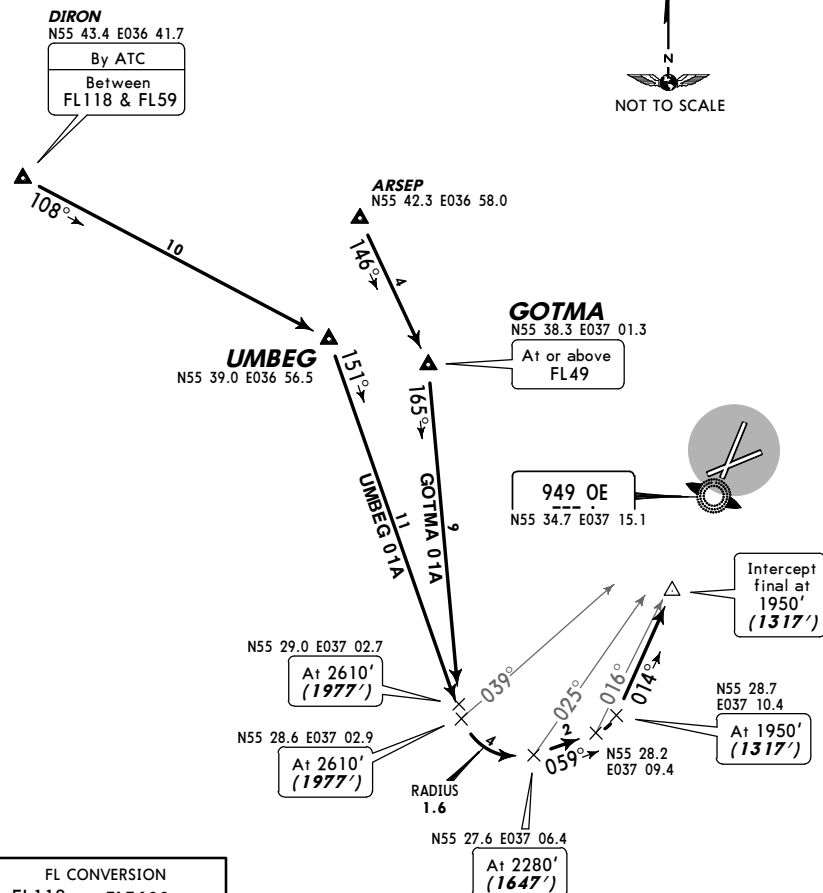
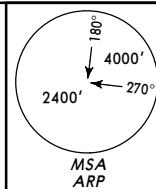
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3337')

GOTMA 01A [GOTØ1A]
UMBEG 01A [UMBØ1A]
RWY 01 ARRIVALS
FROM NORTH
FOR GOTMA 01B & UMBEG 01B REFER TO CHART 10-2A



FL CONVERSION
FL118 FL3600m
FL59 FL1800m
FL49 FL1500m

ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3337' - 1000m)
2610' (1977' - 600m)
2280' (1647' - 500m)
1950' (1317' - 400m)

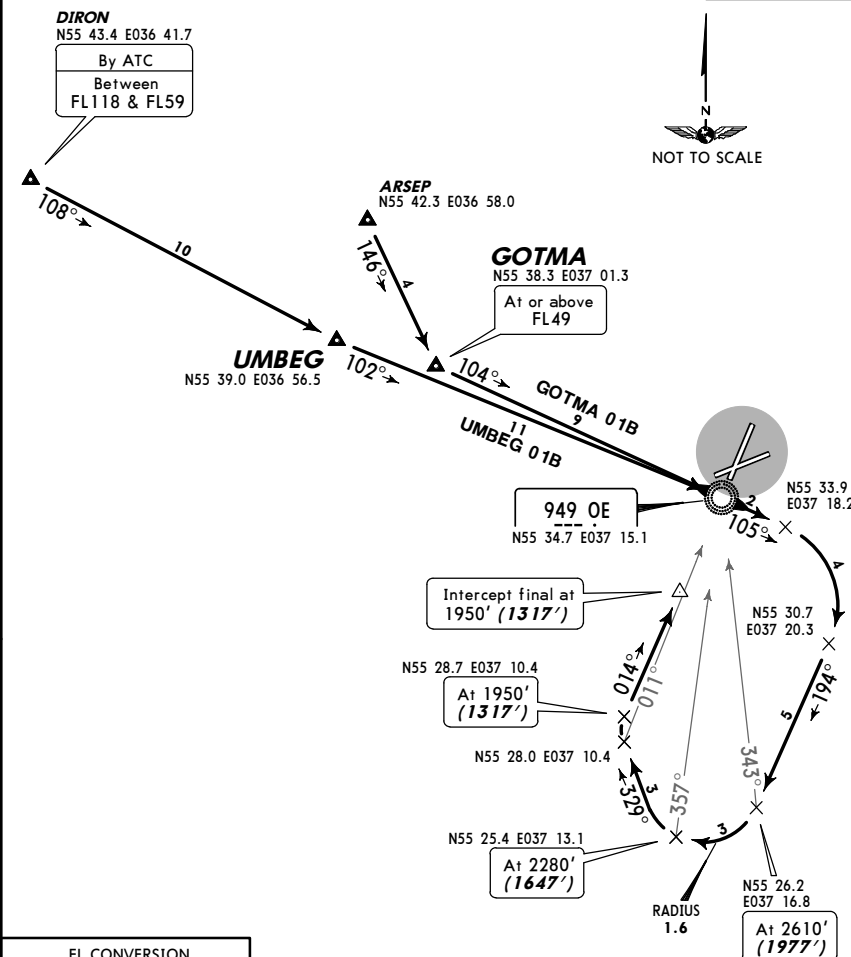
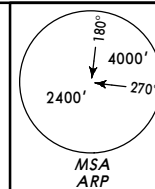
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2A)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3337')

GOTMA 01B [GOTØ1B]
UMBEG 01B [UMBØ1B]
RWY 01 ARRIVALS
FROM NORTH



FL CONVERSION
FL118 FL3600m
FL59 FL1800m
FL49 FL1500m

ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3337' - 1000m)
2610' (1977' - 600m)
2280' (1647' - 500m)
1950' (1317' - 400m)

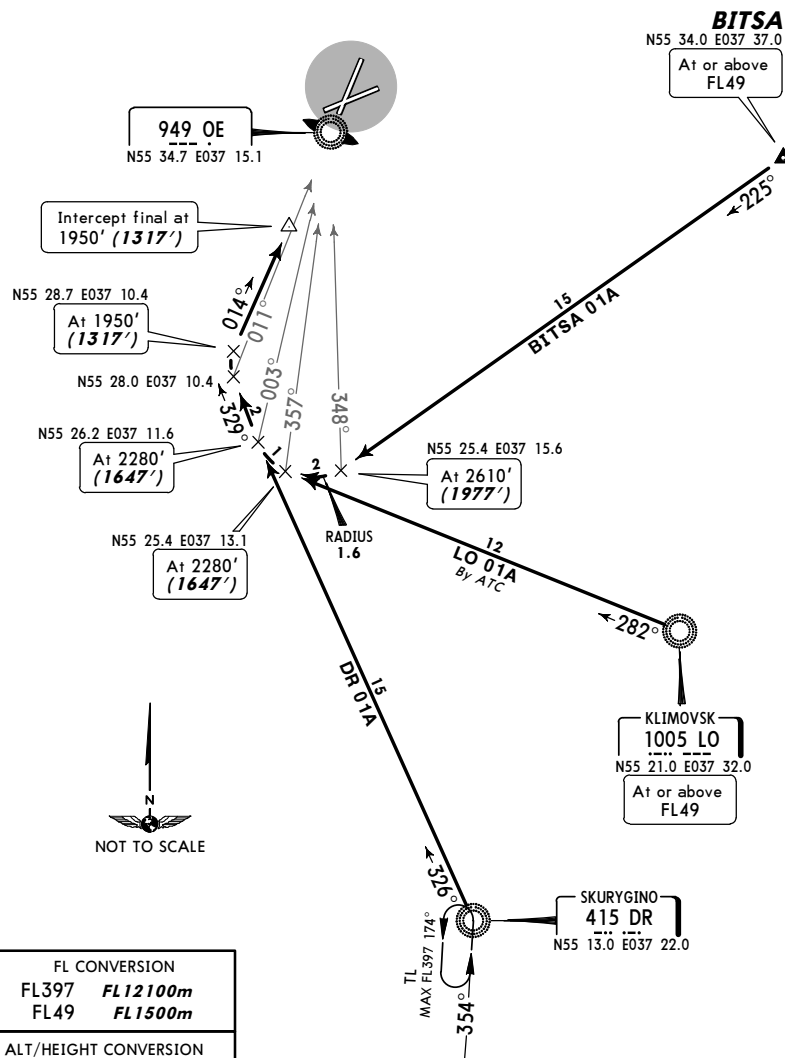
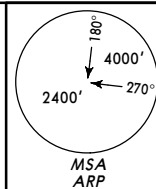
UUWW/VKO
VNUKOV

JEPPesen
20 NOV 09 (10-2B)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3337')

BITSA 01A [BIT01A], KLIMOVSK 01A (LO 01A)
SKURYGINO 01A (DR 01A)
RWY 01 ARRIVALS
FROM EAST & SOUTHEAST
FOR BITSA 01B, LO 01B & DR 01B REFER TO CHART 10-2C



FL CONVERSION
FL397 FL12100m
FL49 FL1500m

ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3337' - 1000m)
2610' (1977' - 600m)
2280' (1647' - 500m)
1950' (1317' - 400m)

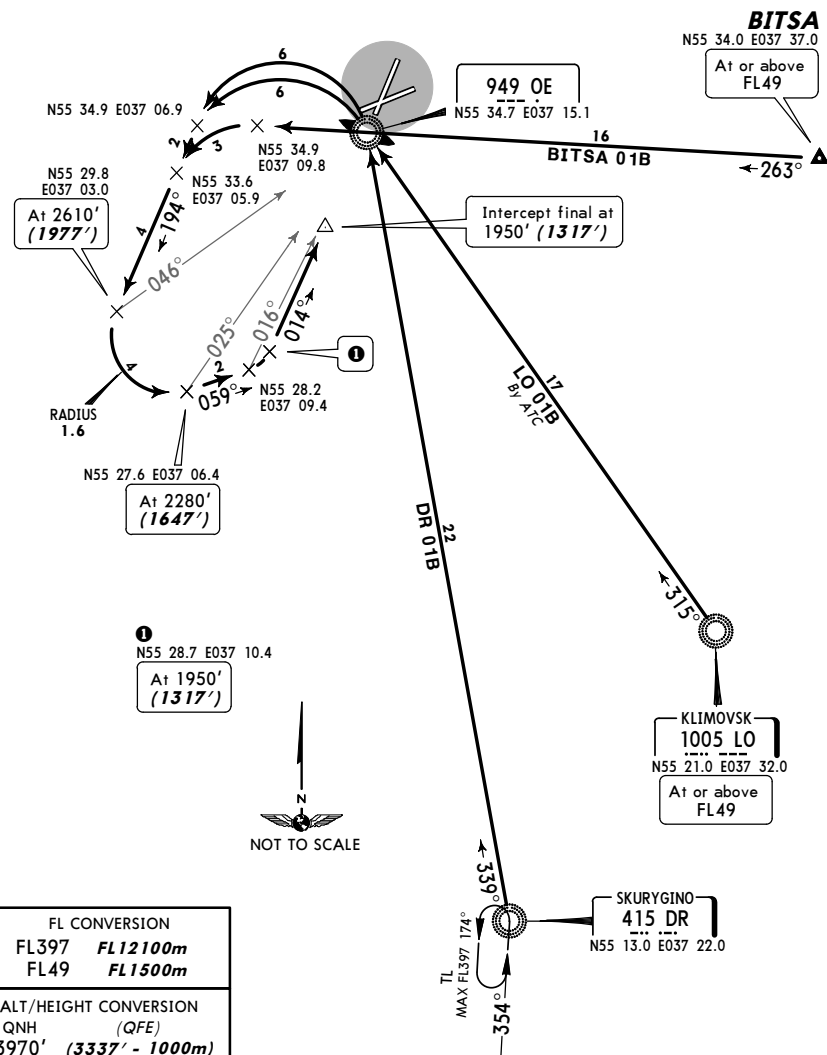
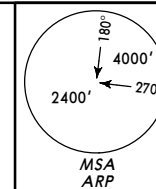
UUWW/VKO
VNUKOV

JEPPesen
20 NOV 09 (10-2C)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3337')

BITSA 01B [BIT01B], KLIMOVSK 01B (LO 01B)
SKURYGINO 01B (DR 01B)
RWY 01 ARRIVALS
FROM EAST & SOUTHEAST



FL CONVERSION
FL397 FL12100m
FL49 FL1500m

ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3337' - 1000m)
2610' (1977' - 600m)
2280' (1647' - 500m)
1950' (1317' - 400m)

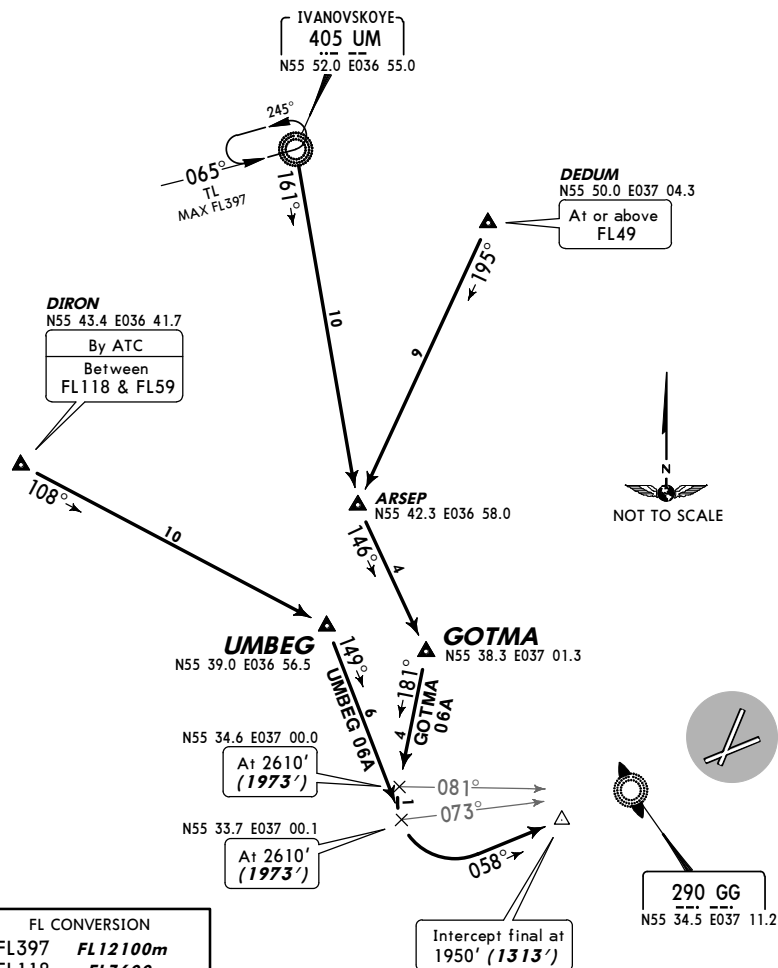
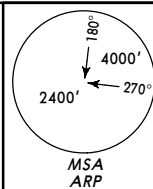
UUWW/VKO
VNUKOVO

JEPPESSEN
20 NOV 09 (10-2D)

MOSCOW, RUSSIA

| | | | |
|-------------------------|-----------------|---|---------|
| ATIS | <i>Apt Elev</i> | Alt Set: MM (hPa on request) QNH on request | (QFE) |
| 131.85 (Russian 125.87) | 685' | Trans level: By ATC Trans alt: 3970' | (3333') |

**GOTMA 06A [GOTØ6A]
UMBEG 06A [UMBØ6A]
RWY 06 ARRIVALS
FROM NORTH
FOR GOTMA 06B & UMBEG 06B REFER TO CHART 10-2E**



| FL CONVERSION | |
|---------------|-----------------|
| FL397 | FL12100m |
| FL118 | FL3600m |
| FL59 | FL1800m |
| FL49 | FL1500m |

ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3333' - 1000m)
2610' (1973' - 600m)
1950' (1313' - 400m)

CHANGES: ATIS.

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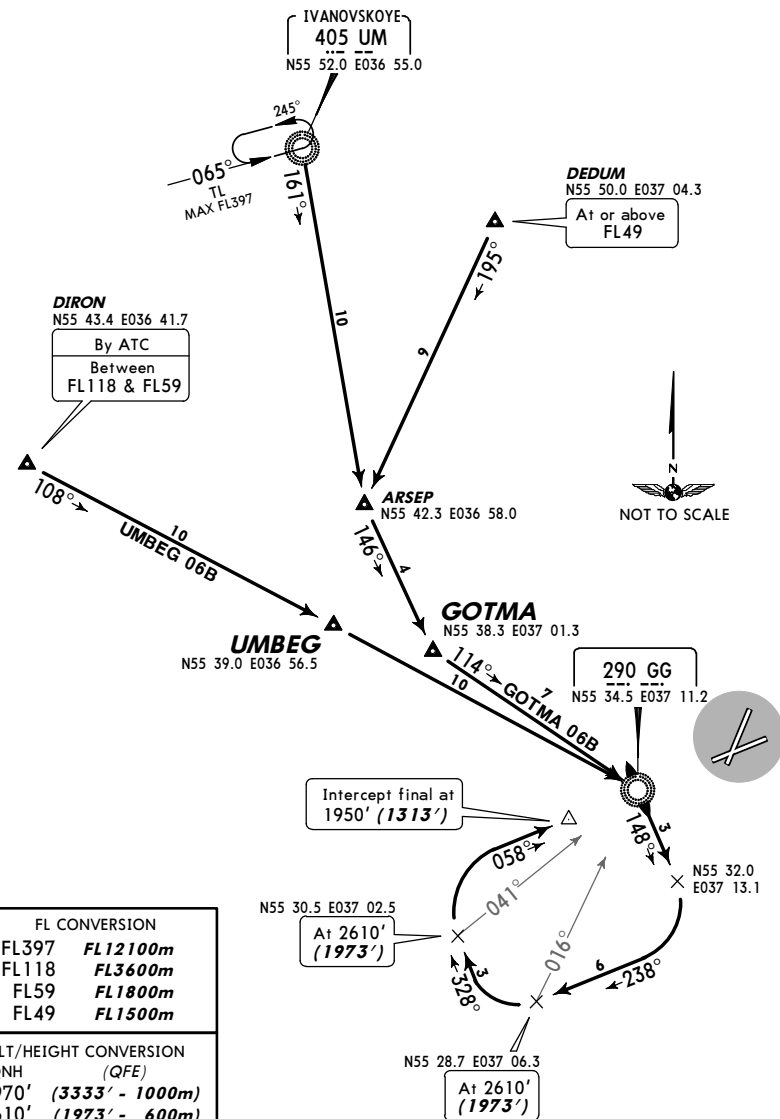
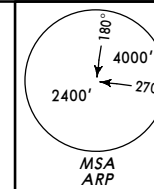
UUWW/VKO
VNUKOVO

20 NOV 09 **JEPPESEN** (10-2E)

MOSCOW, RUSSIA

| | | | |
|-------------------------|-----------------|---|---------|
| ATIS | <i>Apt Elev</i> | Alt Set: MM (hPa on request) QNH on request | (QFE) |
| 131.85 (Russian 125.87) | 685' | Trans level: By ATC Trans alt: 3970' | (3333') |

GOTMA 06B [GOTØ6B]
UMBEG 06B [UMBØ6B]
RWY 06 ARRIVALS
FROM NORTH



| FL CONVERSION | |
|---------------|-----------------|
| FL397 | <i>FL12100m</i> |
| FL118 | <i>FL3600m</i> |
| FL59 | <i>FL1800m</i> |
| FL49 | <i>FL1500m</i> |

| ALT/HEIGHT CONVERSION | |
|-----------------------|-----------------|
| QNH | (QFE) |
| 3970' | (3333' - 1000m) |
| 2610' | (1973' - 600m) |
| 1950' | (1313' - 400m) |

CHANGES: ATIS.

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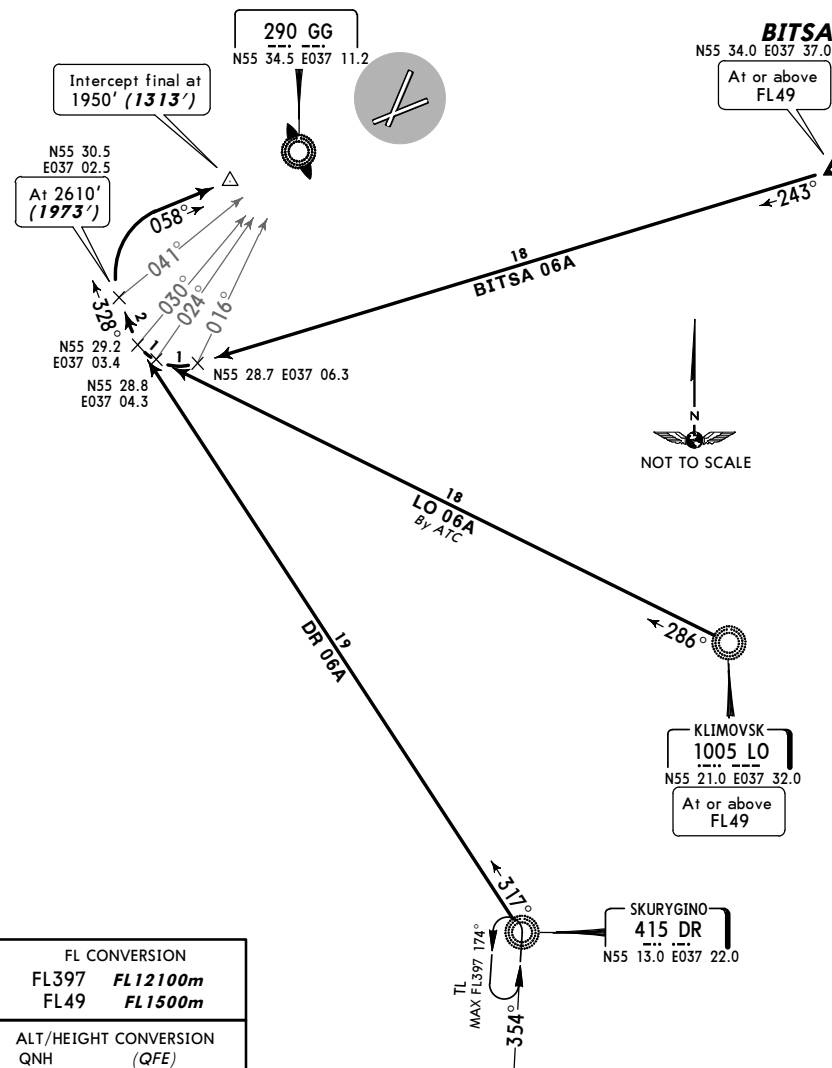
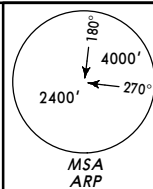
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2F)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3333')

BITSA 06A [BIT06A], KLIMOVSK 06A (LO 06A)
SKURYGINO 06A (DR 06A)
RWY 06 ARRIVALS
FROM EAST & SOUTHEAST
FOR BITSA 06B, LO 06B, DR 06B & DR 06C REFER TO CHART 10-2G



| FL CONVERSION | |
|-----------------------------|-----------------|
| FL397 | FL12100m |
| FL49 | FL1500m |
| ALT/HEIGHT CONVERSION (QFE) | |
| 3970' | (3333' - 1000m) |
| 2610' | (1973' - 600m) |
| 1950' | (1313' - 400m) |

CHANGES: ATIS.

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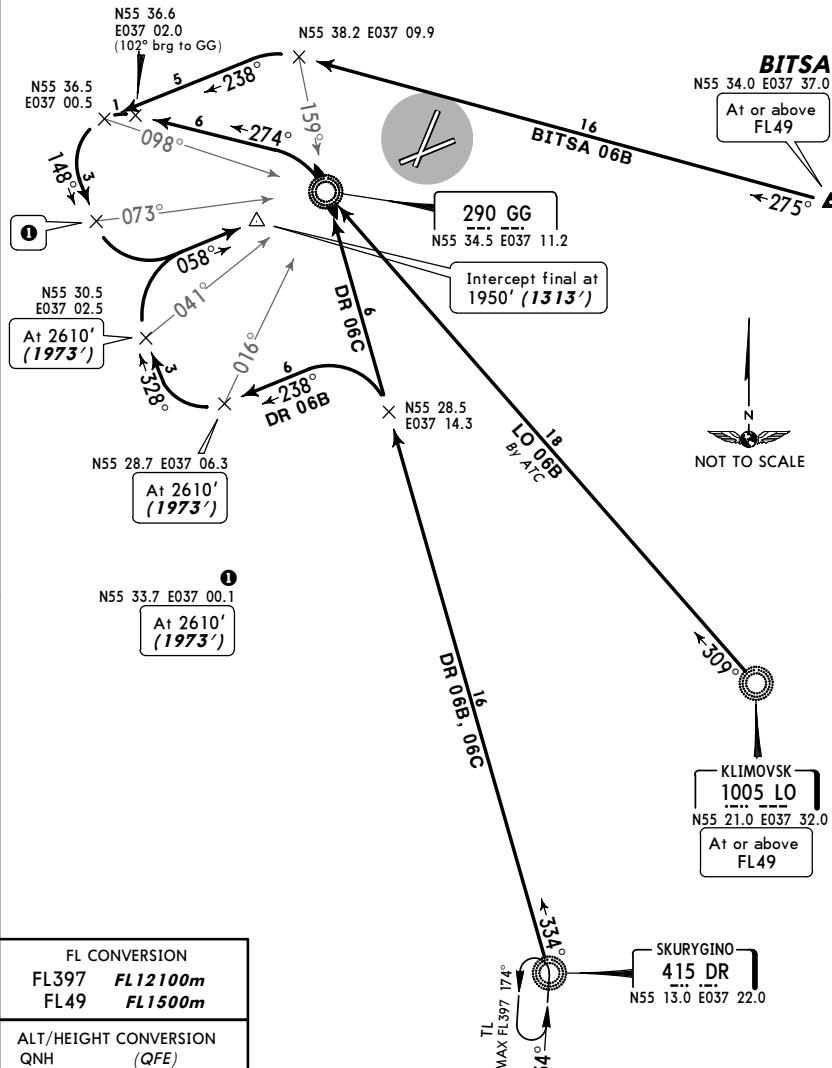
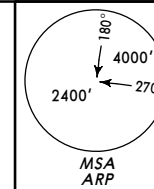
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2G)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3333')

BITSA 06B [BIT06B], KLIMOVSK 06B (LO 06B)
SKURYGINO 06B (DR 06B)
SKURYGINO 06C (DR 06C)
RWY 06 ARRIVALS
FROM EAST & SOUTHEAST



| FL CONVERSION | |
|-----------------------------|-----------------|
| FL397 | FL12100m |
| FL49 | FL1500m |
| ALT/HEIGHT CONVERSION (QFE) | |
| 3970' | (3333' - 1000m) |
| 2610' | (1973' - 600m) |
| 1950' | (1313' - 400m) |

CHANGES: ATIS.

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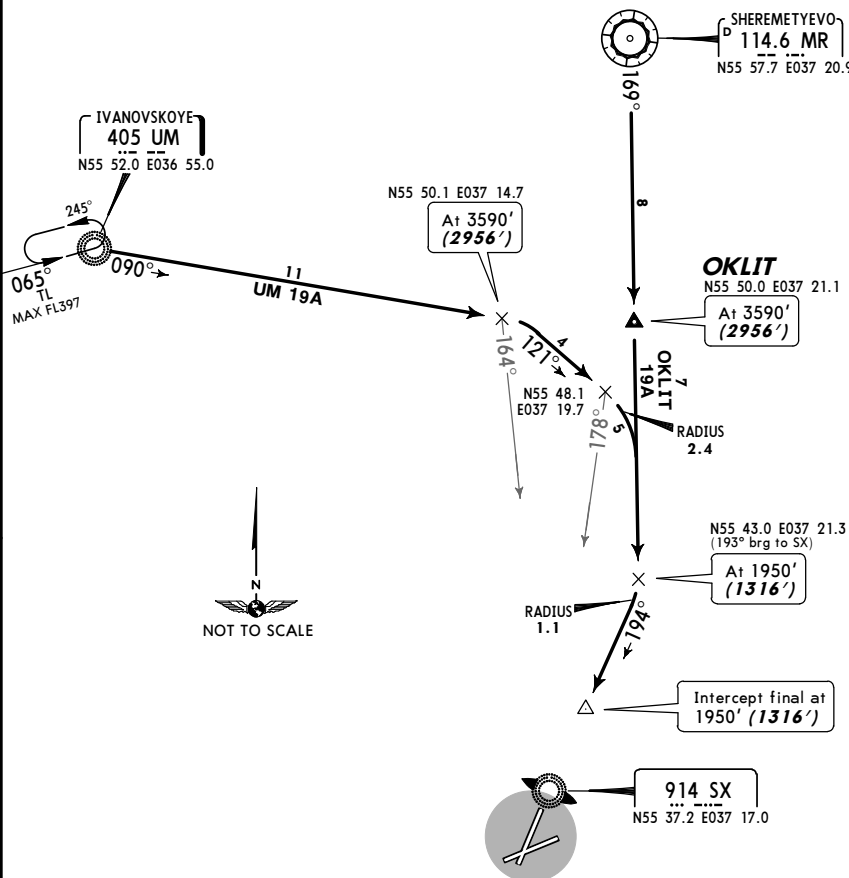
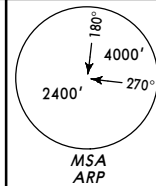
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2H)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3336')

IVANOVSKOYE 19A (UM 19A)
OKLIT 19A [OKL19A]
RWY 19 ARRIVALS
FROM NORTH



| FL CONVERSION | |
|-----------------------|-----------------|
| FL397 | FL12100m |
| ALT/HEIGHT CONVERSION | |
| QNH | (QFE) |
| 3970' | (3336' - 1000m) |
| 3590' | (2956' - 900m) |
| 1950' | (1316' - 400m) |

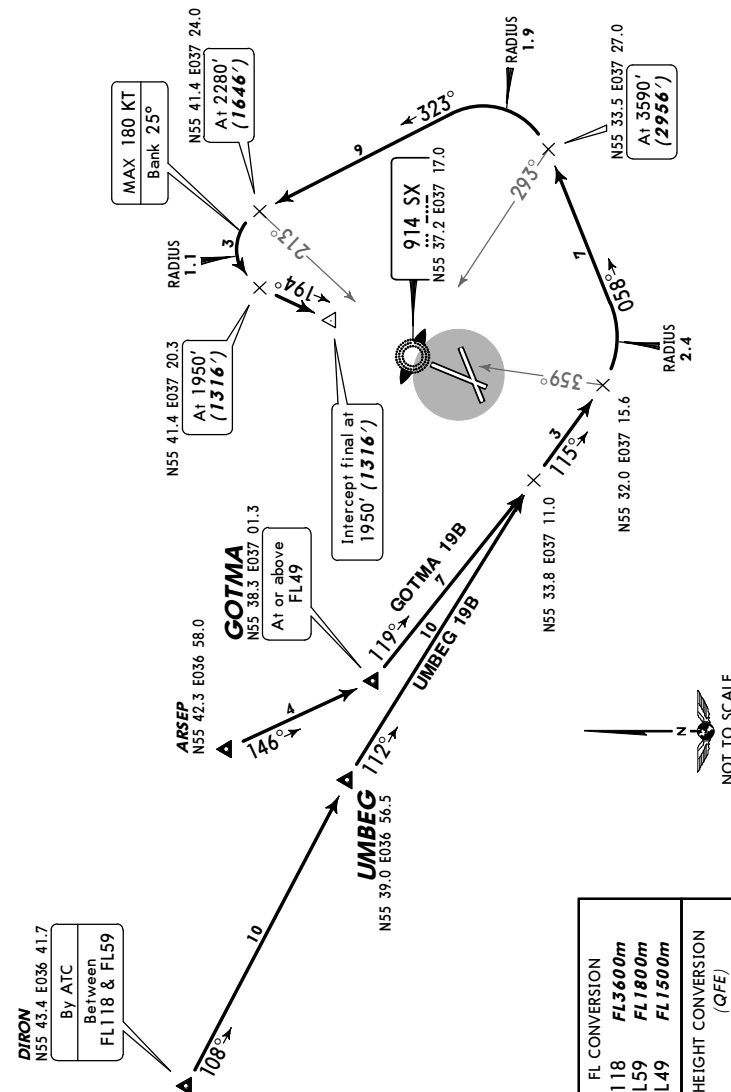
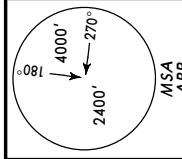
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2J)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3336')

GOTMA 19B [GOT19B]
UMBEG 19B [UMB19B]
RWY 19 ARRIVALS
BY ATC
FROM NORTH



| FL CONVERSION | |
|---------------|---------|
| FL118 | FL3600m |
| FL59 | FL1800m |
| FL49 | FL1500m |

| FL CONVERSION | |
|-----------------------|-----------------|
| FL118 | FL3600m |
| FL59 | FL1800m |
| FL49 | FL1500m |
| ALT/HEIGHT CONVERSION | |
| QNH | (QFE) |
| 3970' | (3336' - 1000m) |
| 3590' | (2956' - 900m) |
| 2280' | (1646' - 500m) |
| 1950' | (1316' - 400m) |

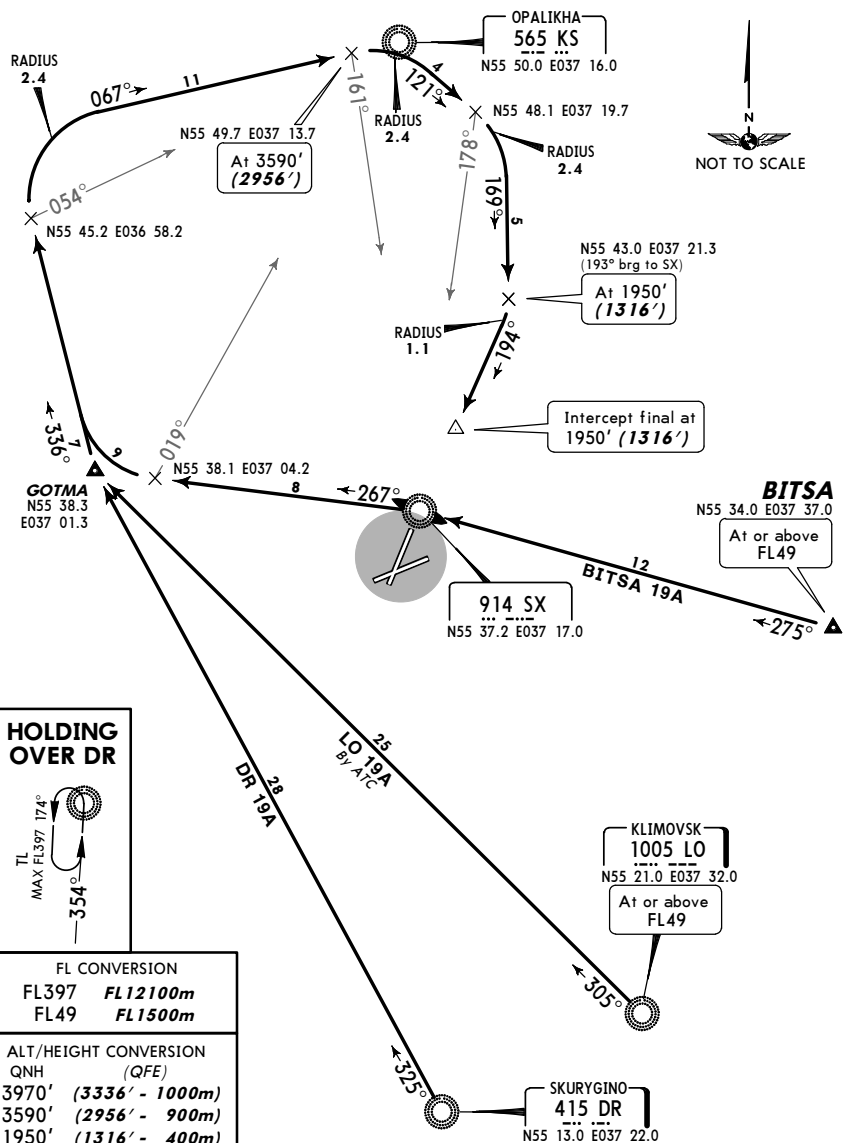
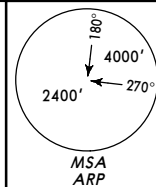
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2K)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3336')

BITSA 19A [BIT19A], KLIMOVSK 19A (LO 19A)
SKURYGINO 19A (DR 19A)
RWY 19 ARRIVALS
FROM EAST & SOUTHEAST
FOR BITSA 19B, LO 19B & DR 19B REFER TO CHART 10-2L



HOLDING
OVER DR



FL CONVERSION
FL397 FL12100m
FL49 FL1500m

ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3336' - 1000m)
3590' (2956' - 900m)
1950' (1316' - 400m)

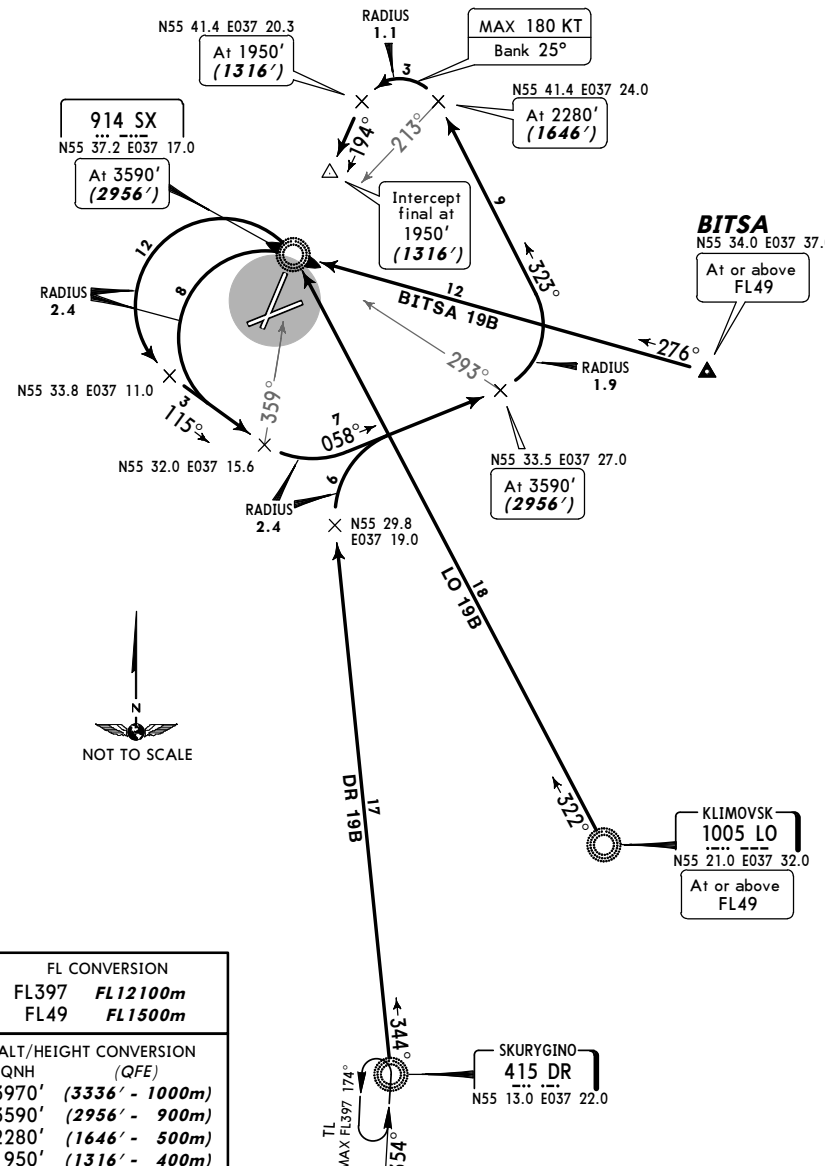
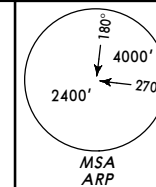
UUWW/VKO
VNUKOVO

JEPPesen
20 NOV 09 (10-2L)

MOSCOW, RUSSIA
STAR

ATIS
131.85 (Russian 125.87)
Apt Elev
685'
Alt Set: MM (hPa on request) QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3336')

BITSA 19B [BIT19B], KLIMOVSK 19B (LO 19B)
SKURYGINO 19B (DR 19B)
RWY 19 ARRIVALS
BY ATC
FROM EAST & SOUTHEAST



FL CONVERSION
FL397 FL12100m
FL49 FL1500m

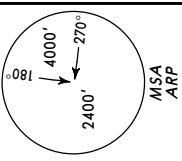
ALT/HEIGHT CONVERSION
QNH (QFE)
3970' (3336' - 1000m)
3590' (2956' - 900m)
2280' (1646' - 500m)
1950' (1316' - 400m)

UWW/VKO
VNUKOVO

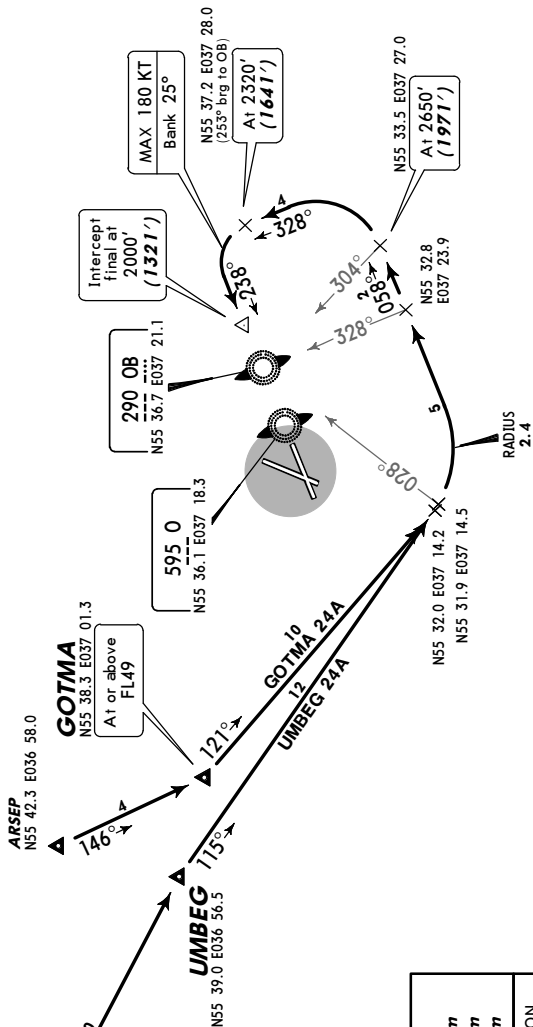
JEPPesen
20 NOV 09 (10-2M)

MOSCOW, RUSSIA
STAR

ATIS 131.85 (Russian 125.87) Apt Elev 685' Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970' (3291')



GOTMA 24A [GOT24A]
UMBEG 24A [UMB24A]
RWY 24 ARRIVALS
FROM NORTH



DIRON
N55 43.4 E036 41.7
By ATC
Between
FL118 & FL59

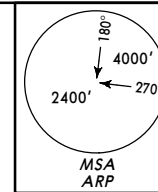
| FL CONVERSION | |
|-----------------------|-----------------|
| FL118 | FL3600m |
| FL59 | FL1800m |
| FL49 | FL1500m |
| ALT/HEIGHT CONVERSION | |
| QNH | (QFE) |
| 3970' | (3291' - 1000m) |
| 2650' | (1971' - 600m) |
| 2320' | (1641' - 500m) |
| 2000' | (1321' - 400m) |

UWW/VKO
VNUKOVO

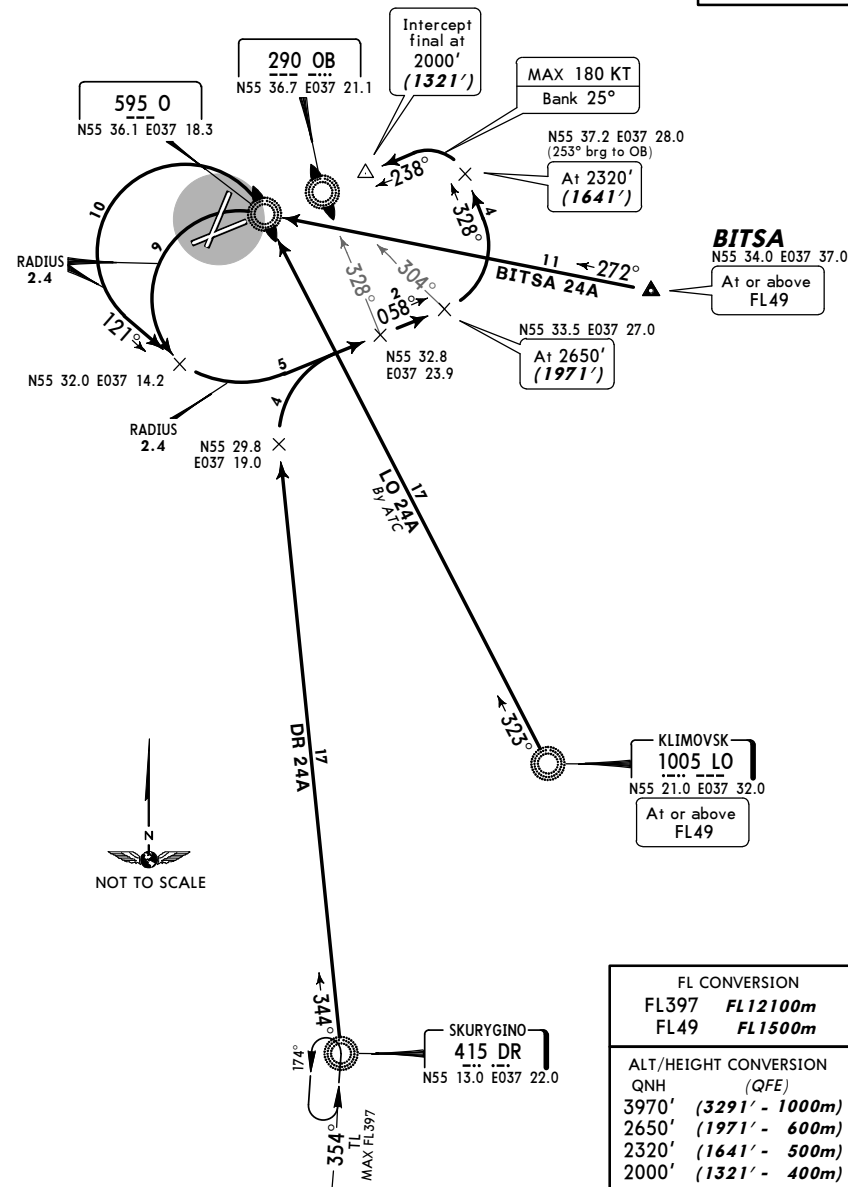
JEPPesen
20 NOV 09 (10-2N)

MOSCOW, RUSSIA
STAR

ATIS 131.85 (Russian 125.87) Apt Elev 685' Alt Set: MM (hPa on request) QNH on request (QFE) Trans level: By ATC Trans alt: 3970' (3291')



BITSA 24A [BIT24A]
KLIMOVSK 24A (LO 24A)
SKURYGINO 24A (DR 24A)
RWY 24 ARRIVALS
FROM EAST & SOUTHEAST



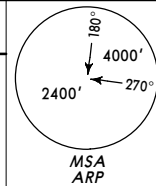
| FL CONVERSION | |
|-----------------------|-----------------|
| FL397 | FL12100m |
| FL49 | FL1500m |
| ALT/HEIGHT CONVERSION | |
| QNH | (QFE) |
| 3970' | (3291' - 1000m) |
| 2650' | (1971' - 600m) |
| 2320' | (1641' - 500m) |
| 2000' | (1321' - 400m) |

UUWW/VKO
VNUKOV

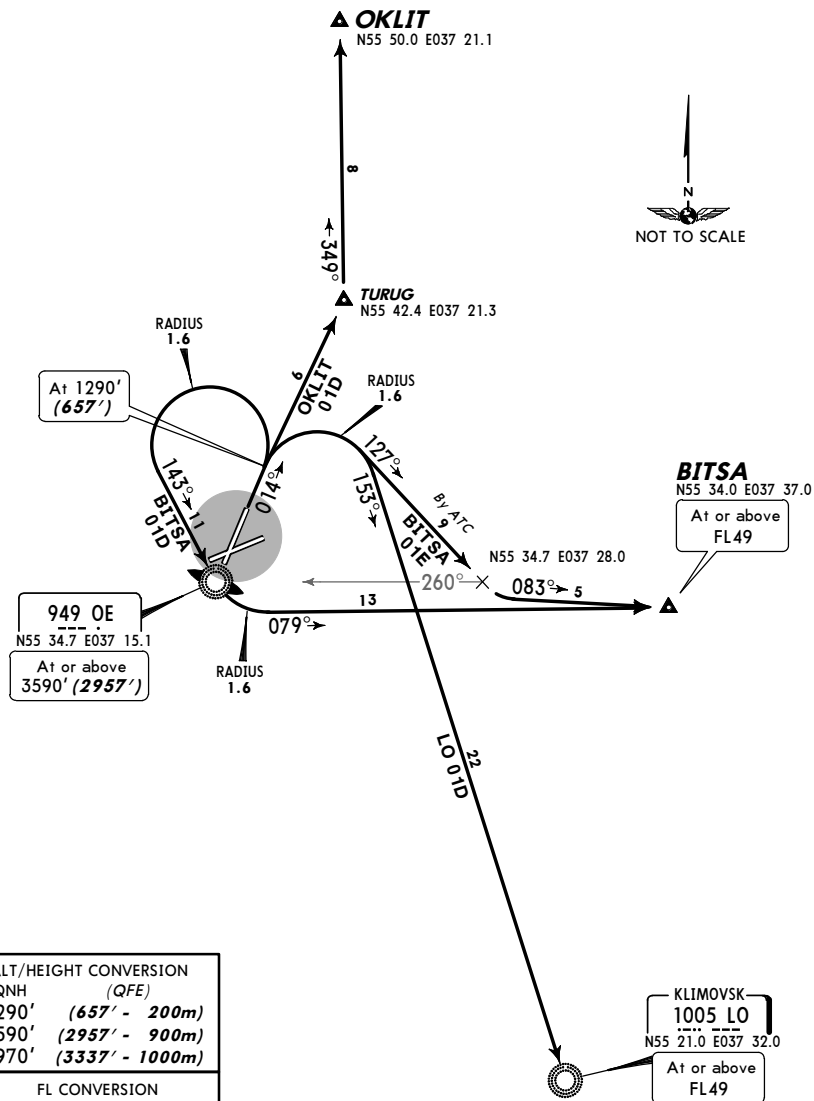
JEPPesen
25 SEP 09 (10-3)

MOSCOW, RUSSIA
SID

Apt Elev
685'
QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3333')



BITSA 01D [BITØ1D], BITSA 01E [BITØ1E]
KLIMOVSK 01D (LO 01D)
OKLIT 01D [OKLØ1D]
RWY 01 DEPARTURES
TO NORTH, EAST & SOUTHEAST



ALT/HEIGHT CONVERSION
QNH (QFE)
1290' (657' - 200m)
3590' (2957' - 900m)
3970' (3337' - 1000m)

FL CONVERSION
FL49 FL1500m

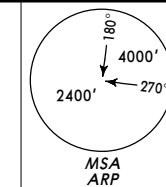
KLIMOVSK
1005 LO
N55 21.0 E037 32.0
At or above
FL49

UUWW/VKO
VNUKOV

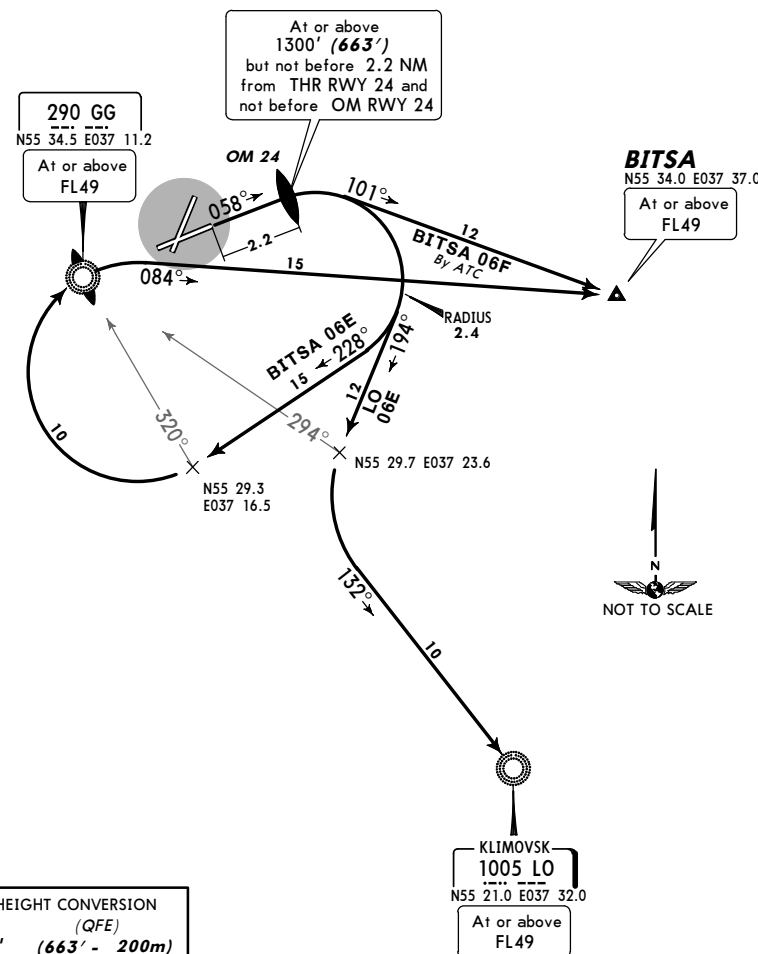
JEPPesen
25 SEP 09 (10-3A)

MOSCOW, RUSSIA
SID

VNUKOV
Radar
126.0
Apt Elev
685'
QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3333')
1. Contact VNUKOV Radar immediately after crossing 1300' (663').
2. Initial climb clearance 2610' (1973'). 3. Execute noise abatement
procedures according to ICAO Annex 16, DOC 8168.
4. Aircraft with MAX 160 KT as directed by ATC.



BITSA 06E [BITØ6E], BITSA 06F [BITØ6F]
KLIMOVSK 06E (LO 06E)
RWY 06 DEPARTURES
TO EAST & SOUTHEAST



ALT/HEIGHT CONVERSION
QNH (QFE)
1300' (663' - 200m)
2610' (1973' - 600m)
3970' (3333' - 1000m)

FL CONVERSION
FL49 FL1500m

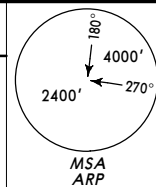
KLIMOVSK
1005 LO
N55 21.0 E037 32.0
At or above
FL49

UUWW/VKO
VNUKOVO

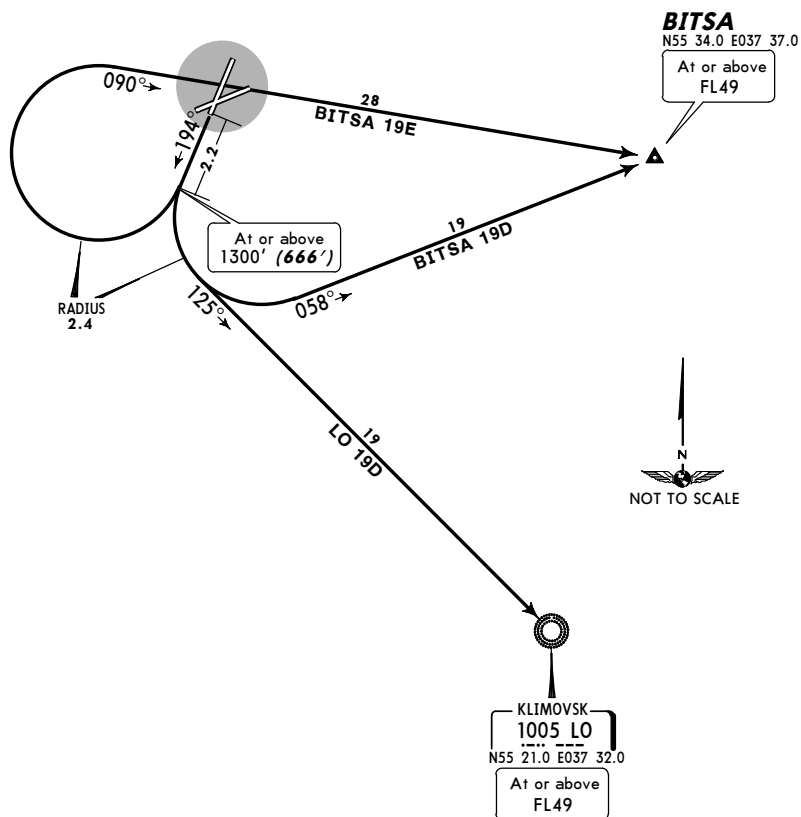
JEPPesen
11 SEP 09 (10-3B) Eff 24 Sep

MOSCOW, RUSSIA
SID

Apt Elev
685'
QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3336')



BITSA 19D [BIT19D], BITSA 19E [BIT19E]
KLIMOVSK 19D (LO 19D)
RWY 19 DEPARTURES
TO EAST & SOUTHEAST



ALT/HEIGHT CONVERSION
QNH (QFE)
1300' (666' - 200m)
3970' (3336' - 1000m)

FL CONVERSION
FL49 FL1500m

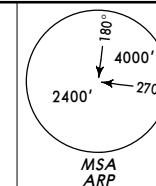
UUWW/VKO
VNUKOVO

JEPPesen
11 SEP 09 (10-3C) Eff 24 Sep

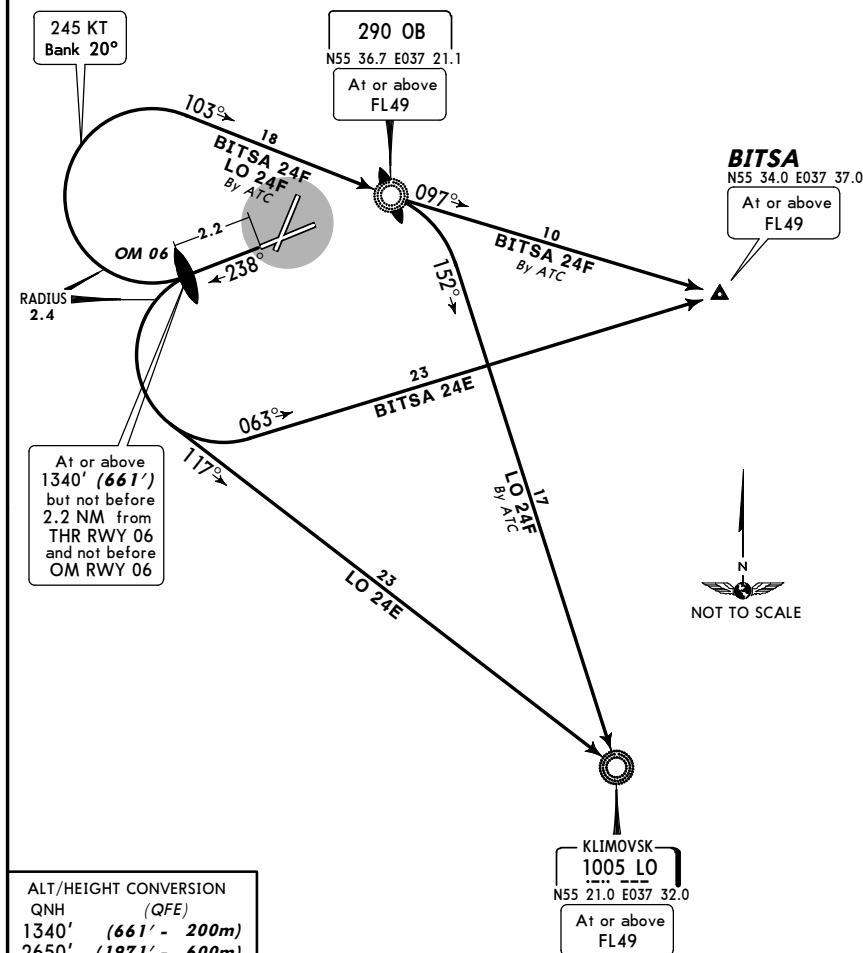
MOSCOW, RUSSIA
SID

VNUKOVO
Radar
126.0
Apt Elev
685'

QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3291')
1. Contact VNUKOVO Radar immediately after crossing 1340' (661').
2. Initial climb clearance 2650' (1971'). 3. Execute noise abatement
procedures according to ICAO Annex 16, DOC 8168.
4. Aircraft with MAX 160 KT as directed by ATC.



BITSA 24E [BIT24E], BITSA 24F [BIT24F]
KLIMOVSK 24E (LO 24E), KLIMOVSK 24F (LO 24F)
RWY 24 DEPARTURES
TO EAST & SOUTHEAST



ALT/HEIGHT CONVERSION
QNH (QFE)
1340' (661' - 200m)
2650' (1971' - 600m)
3970' (3291' - 1000m)

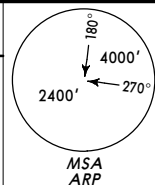
FL CONVERSION
FL49 FL1500m

UUWW/VKO
VNUKOVO

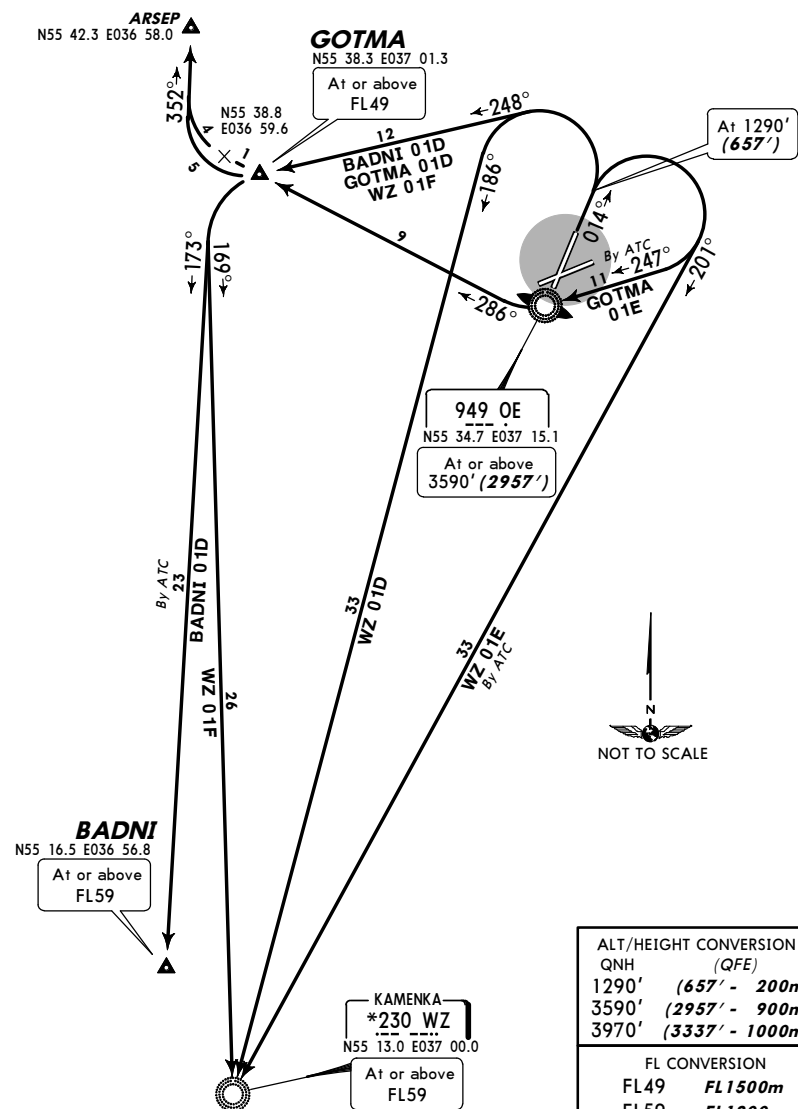
JEPPESEN
11 SEP 09 10-3D Eff 24 Sep

MOSCOW, RUSSIA
SID

Apt Elev 685'
QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3337')



BADNI 01D [BADØ1D], GOTMA 01D [GOTØ1D]
GOTMA 01E [GOTØ1E], KAMENKA 01D (WZ 01D)
KAMENKA 01E (WZ 01E), KAMENKA 01F (WZ 01F)
RWY 01 DEPARTURES
TO SOUTHWEST & NORTH



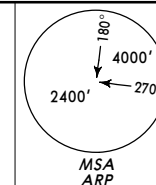
| ALT/HEIGHT CONVERSION | |
|-----------------------|-----------------|
| QNH | (QFE) |
| 1290' | (657' - 200m) |
| 3590' | (2957' - 900m) |
| 3970' | (3337' - 1000m) |
| FL CONVERSION | |
| FL49 | FL1500m |
| FL59 | FL1800m |

UUWW/VKO
VNUKOVO

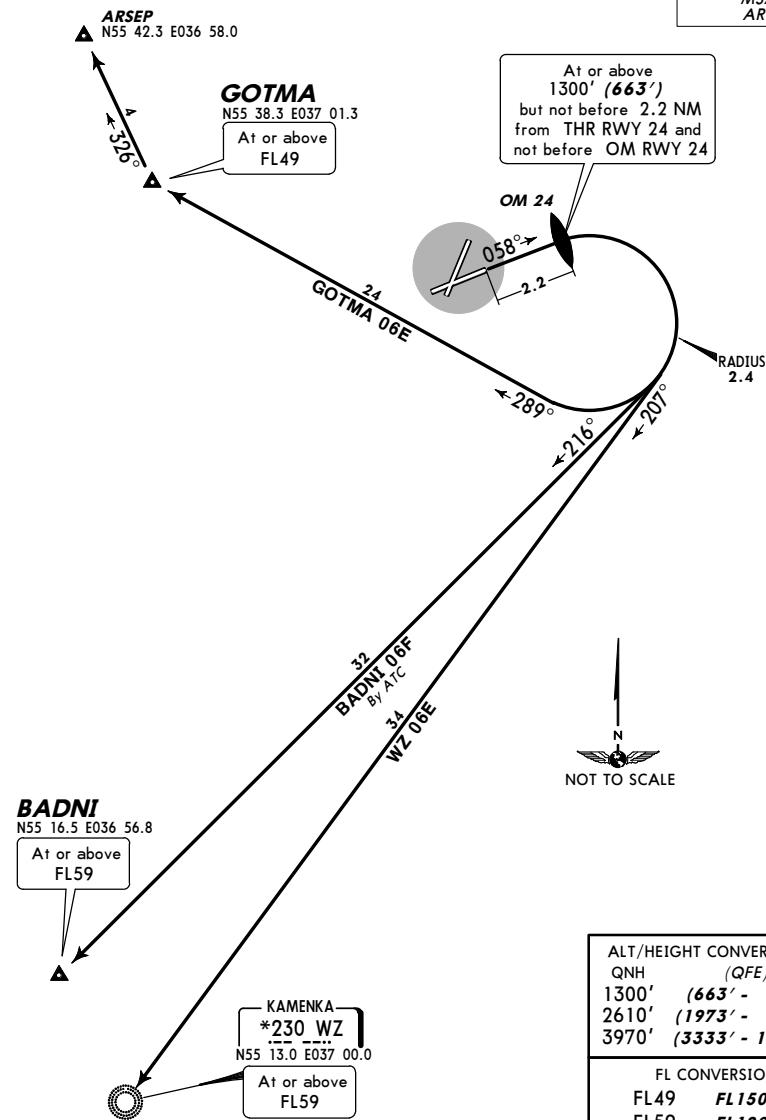
JEPPESEN
11 SEP 09 10-3E Eff 24 Sep

MOSCOW, RUSSIA
SID

VNUKOVO Radar 126.0
Apt Elev 685'
QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3333')
1. Contact VNUKOVO Radar immediately after crossing 1300' (663').
2. Initial climb clearance 2610' (1973'). 3. Execute noise abatement procedures according to ICAO Annex 16, DOC 8168.
4. Aircraft with MAX 160 KT as directed by ATC.



BADNI 06F [BADØ6F], GOTMA 06E [GOTØ6E]
KAMENKA 06E (WZ 06E)
RWY 06 DEPARTURES
TO SOUTHWEST & WEST



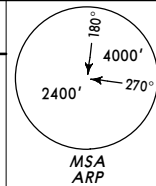
| ALT/HEIGHT CONVERSION | |
|-----------------------|-----------------|
| QNH | (QFE) |
| 1300' | (663' - 200m) |
| 2610' | (1973' - 600m) |
| 3970' | (3333' - 1000m) |
| FL CONVERSION | |
| FL49 | FL1500m |
| FL59 | FL1800m |

UUWW/VKO
VNUKOVO

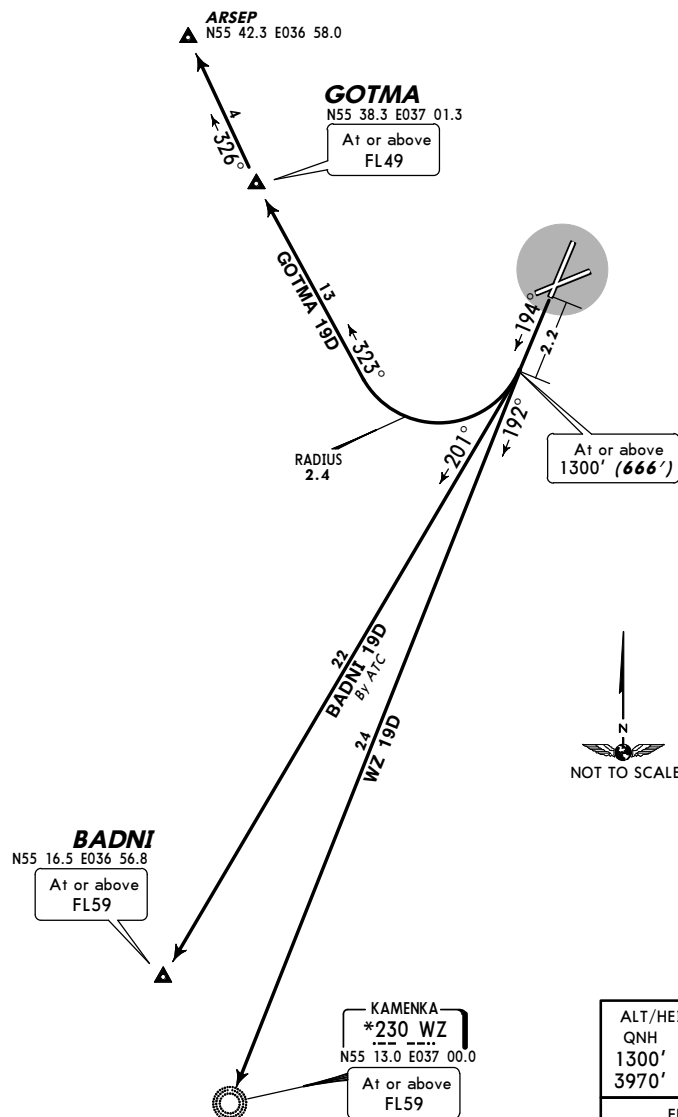
JEPPesen
11 SEP 09 10-3F Eff 24 Sep

MOSCOW, RUSSIA
SID

Apt Elev 685'
QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3336')



BADNI 19D [BAD19D], GOTMA 19D [GOT19D]
KAMENKA 19D (WZ 19D)
RWY 19 DEPARTURES
TO SOUTHWEST & WEST



ALT/HEIGHT CONVERSION
QNH (QFE)
1300' (666' - 200m)
3970' (3336' - 1000m)

FL CONVERSION
FL49 FL1500m
FL59 FL1800m

UUWW/VKO
VNUKOVO

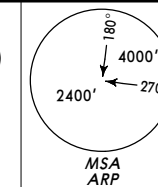
JEPPesen
11 SEP 09 10-3G Eff 24 Sep

MOSCOW, RUSSIA
SID

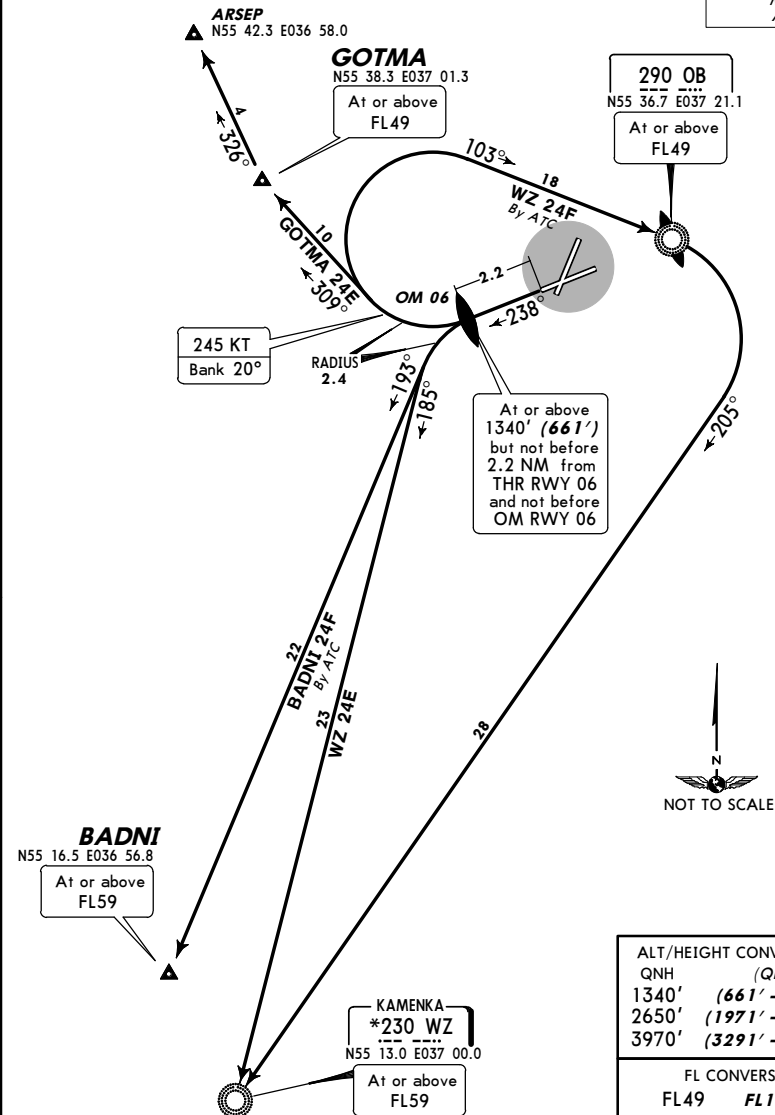
VNUKOVO
Radar
126.0

Apt Elev
685'

QNH on request (QFE)
Trans level: By ATC Trans alt: 3970' (3291')
1. Contact VNUKOVO Radar immediately after crossing 1340' (661').
2. Initial climb clearance 2650' (1971'). 3. Execute noise abatement
procedures according to ICAO Annex 16, DOC 8168.
4. Aircraft with MAX 160 KT as directed by ATC.



BADNI 24F [BAD24F], GOTMA 24E [GOT24E]
KAMENKA 24E (WZ 24E), KAMENKA 24F (WZ 24F)
RWY 24 DEPARTURES
TO SOUTHWEST & WEST



ALT/HEIGHT CONVERSION
QNH (QFE)
1340' (661' - 200m)
2650' (1971' - 600m)
3970' (3291' - 1000m)

FL CONVERSION
FL49 FL1500m
FL59 FL1800m

Apt Elev **685'**
N55 36.0 E037 16.4

6 NOV 09 (10-9) Eff 19 Nov

VNUKOVO

[illegible]

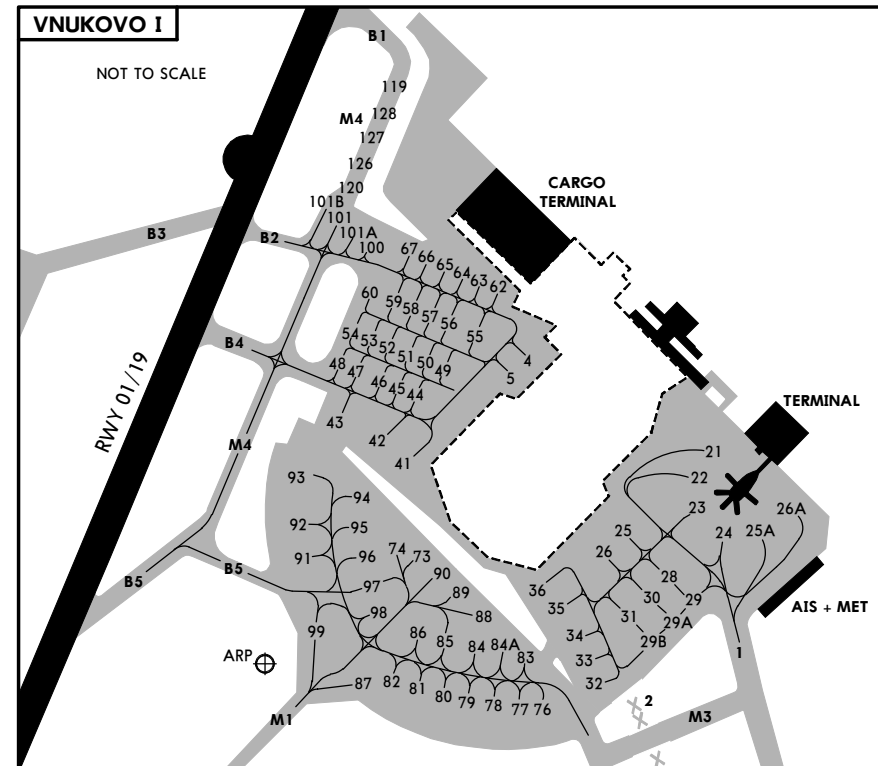
① First 328'/100m unusable for take-off.

CHANGES - LTIC - 1-1-2018

SETH, THE

6 NOV 09 (10-9A) Eff 19 Nov

VNUJKOVO

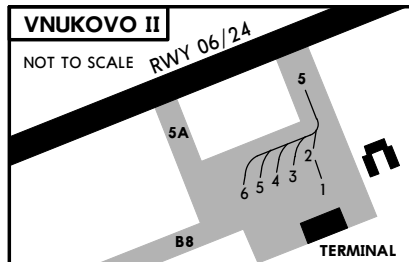


CHANGES: Chart reindexed. © JEPPESEN, 2000, 2009. ALL RIGHTS RESERVED.

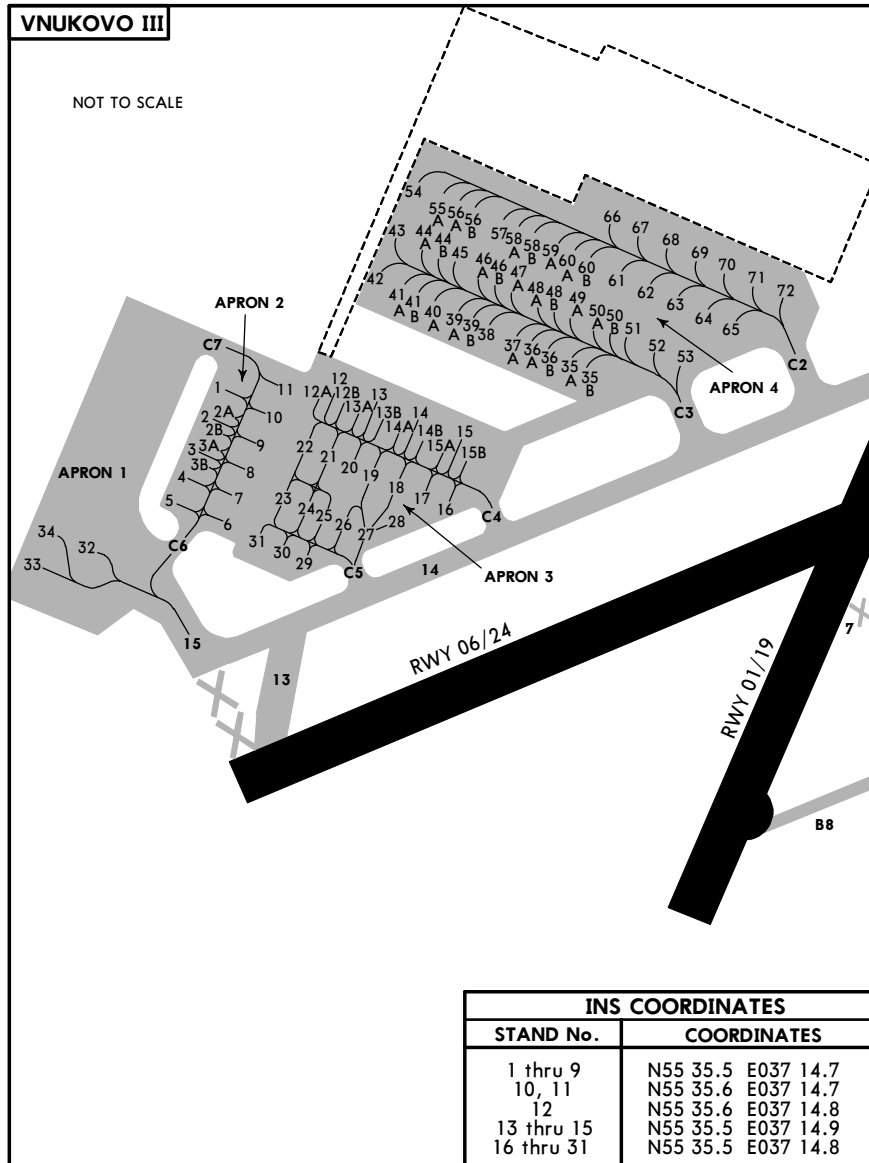
UUWW/VKO

JEPPESSEN
6 NOV 09 (10-9B) Eff 19 Nov

MOSCOW, RUSSIA
VNUKOVO



| INS COORDINATES | |
|-----------------|--------------------|
| STAND No. | COORDINATES |
| 1, 2 | N55 35.6 E037 17.3 |



CHANGES: Chart reindexed.

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UUWW/VKO

JEPPESSEN
14 AUG 09 (10-9X) Eff 27 Aug

JAA MINIMUMS
MOSCOW, RUSSIA
VNUKOVO

| STRAIGHT-IN RWY | | A | B | C | D |
|-----------------|-----------|----------------------|----------------------|----------------------|----------------------|
| 01 | ILS | 833' (200') | 833' (200') | 833' (200') | 833' (200') |
| | | R550m | R550m | R550m | R550m |
| | ALS out | R1000m | R1000m | R1000m | R1000m |
| LOC | | NOT AUTHORIZED | | | |
| | NDB | 1400' (767') | 1400' (767') | 1400' (767') | 1400' (767') |
| | | R1200m | R1400m | R1400m | R1800m |
| | ALS out | R1500m | R1500m | R2000m | R2000m |
| 06 | ILS | 837' (200') | 837' (200') | 837' (200') | 837' (200') |
| | | R550m | R550m | R550m | R550m |
| | ALS out | R1000m | R1000m | R1000m | R1000m |
| LOC | | NOT AUTHORIZED | | | |
| | NDB | 1000' (363') | 1000' (363') | 1000' (363') | 1000' (363') |
| | | R900m | R1000m | R1000m | R1400m |
| | ALS out | R1500m | R1500m | R1800m | R2000m |
| 19 | ILS | 834' (200') | 834' (200') | 834' (200') | 834' (200') |
| | | R550m | R550m | R550m | R550m |
| | ALS out | R1000m | R1000m | R1000m | R1000m |
| LOC | | NOT AUTHORIZED | | | |
| | NDB | 1460' (826') | 1460' (826') | 1460' (826') | 1460' (826') |
| | | R1200m | R1400m | R1400m | R1800m |
| | ALS out | R1500m | R1500m | R2000m | R2000m |
| 24 | CAT 2 ILS | 779' (100') | 779' (100') | 779' (100') | 779' (100') |
| | | RA 111' R350m | RA 111' R350m | RA 111' R350m | RA 111' R350m |
| | ILS | 879' (200') | 879' (200') | 879' (200') | 879' (200') |
| | | R550m | R550m | R550m | R550m |
| | ALS out | R1000m | R1000m | R1000m | R1000m |
| | LOC | NOT AUTHORIZED | | | |
| | NDB | 1060' (381') | 1060' (381') | 1060' (381') | 1060' (381') |
| | | R900m | R1000m | R1000m | R1400m |
| | ALS out | R1500m | R1500m | R1800m | R2000m |

TAKE-OFF RWY 01, 06, 19, 24

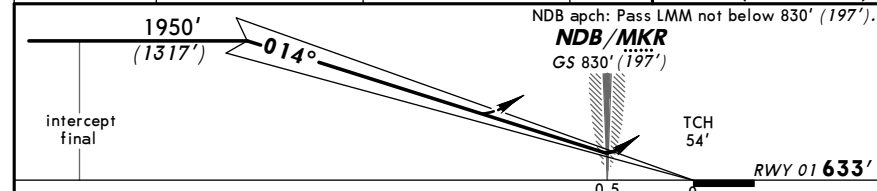
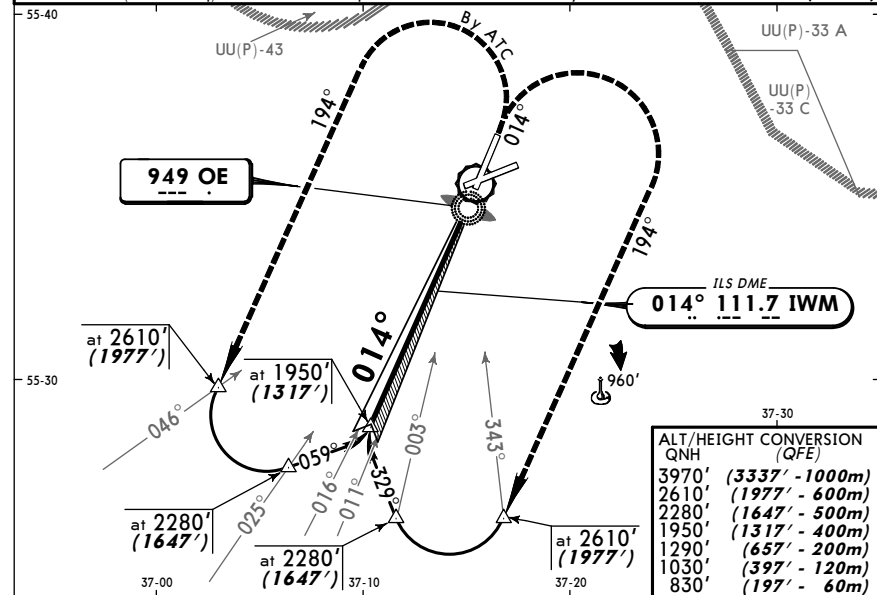
| | LVP must be in Force | | | | NIL (DAY only) |
|---|---|---------------------------|---------|--------------------------|--------------------------|
| | Approved Operators HIRL, CL & mult. RVR req | RL, CL & mult. RVR req | RL & CL | RCLM (DAY only) or RL | RCLM (DAY only) or RL |
| A | | | | | |
| B | 125m | 150m | 200m | 250m | 400m |
| C | | | | | 500m |
| D | 150m | 200m | 250m | 300m | |

CHANGES: New procedures rwy 01/19. Minimums.

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UUWW/VKO MOSCOW, RUSSIA
VNUKOVO ILS or NDB/MKR Rwy 01

| | | | | | | | | |
|--------------------------|--|------------------|-------------------------------------|--------------------------------------|------------------------------------|---------------------------------|----------------------------------|---|
| BRIEFING STRIP TA | ATIS 131.85 (Russian 125.87) | | MOSCOW Approach 3 128.0 | | MOSCOW Approach 4 123.4 | | VNUKOVO Approach 122.3 | |
| | VNUKOVO Radar 126.0 | | VNUKOVO Tower (PAR) 118.3 | | VNUKOVO Start(TWR) 118.3 | | Ground 120.45 | |
| | LOC IWM 111.7 | | No GS published | ILS DA(H) 833' (200') | | Apt Elev 685' | |  |
| | NDB OE 949 | | | NDB MDA(H) 1400' (767') | | | | |
| | Final Apch Crs 014° | | Minimum Alt No FAF | | RWY 633' | | | |
| | MISSED APCH: Climb on 014° to 1030' (397') , then turn RIGHT onto 194° climbing to 2610' (1977') , then according to chart. At 1290' (657') , immediately contact Radar. | | | | | | MSA Airport | |
| Alt Set: MM (hPa on req) | | QNH on req (QFE) | | Trans level: By ATC | | Trans alt: 3970' (3337') | | |



| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | HIALS | 1030' (397') | 014° | 194° | 2610' (1977') |
|---------------------------------------|-----|-----|-----|-----|-----|-----|-------|--------------|------|------|---------------|
| ILS GS 3.00° or NDB Desc Grad 5.2% | 377 | 484 | 538 | 646 | 753 | 861 | PAPI | ↑ | ↑ | ↑ | ↑ |

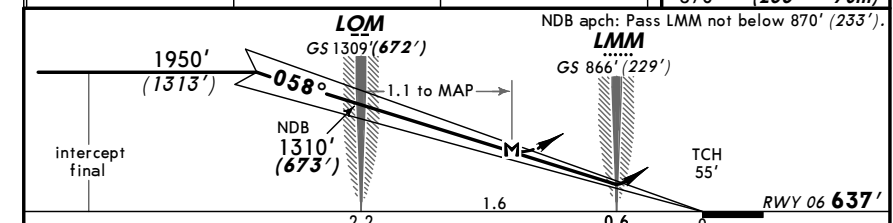
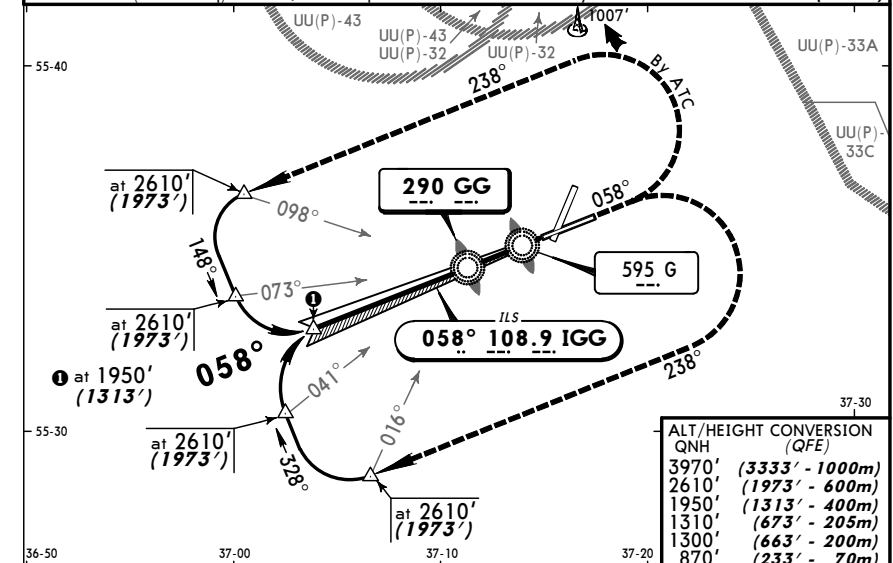
| STRAIGHT-IN LANDING RWY 01 | | | | STRAIGHT-IN LANDING RWY 06 | | | |
|----------------------------|----------------------|-----------------|-------------|----------------------------|--|---------------------------------|--|
| ILS DA(H) 833' (200') | | LOC (GS out) | | NDB MDA(H) 1400' (767') | | NDB MDA(H) 1000' (363') | |
| FULL | ALS out | | | ALS out | | ALS out | |
| A | | | | | | | |
| B | | | | | | | |
| C | RVR 720m VIS 800m | 1200m | NOT AUTH | 3200m 3600m | | 1200m RVR 1800m VIS 2000m | |
| D | | | | 3600m 4000m | | RVR 1500m VIS 1600m | |

CHANGES: ATIS. ILS DME added.

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UUWW/VKO MOSCOW, RUSSIA
VNUKOVO ILS or 2 NDB Rwy 06

| | | | | | | | | | | |
|-----------------|---|---------------------------|------------------------------------|-------------------------------|-------------------------------|--|---|--|--------------------------|--|
| BRIEFING STRIP™ | ATIS 131.85 (Russian 125.87) | | MOSCOW Approach 3 128.0 | | MOSCOW Approach 4 123.4 | | VNUKOVO Approach 122.3 | | | |
| | VNUKOVO Radar 126.0 | | VNUKOVO Tower (PAR) 118.3 | | VNUKOVO Start(TWR) 118.3 | | Ground 120.45 | | | |
| | LOC IGG 108.9 | Final Apch Crs 058° | GS LOM 1309' (672') | ILS DA(H) 837' (200') | Apt Elev 685' RWY 637' | |  | | | |
| | NDB GG 290 | | Minimum Alt LOM 1310' (673') | NDB MDA(H) 1000' (363') | | | | | | |
| | MISSED APCH: Climb on 058° to 1300' (663'), then turn RIGHT onto 238° climbing to 2610' (1973'), then as directed. At 1300' (663'), immediately contact Radar. | | | | | | | | | |
| | Alt Set: MM (hPa on req) | | QNH on req (QFE) | Trans level: By ATC | | | | | Trans alt: 3970' (3333') | |



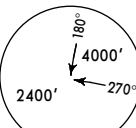
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | HIALS | 1300' (663') | 058° | 238° | 2610' (1973') |
|---------------------------------------|-----|-----|-----|-----|-----|-----|-------|--------------|------|------|---------------|
| ILS GS 2.73° or NDB Desc Grad 4.8% | 340 | 437 | 486 | 583 | 681 | 778 | PAPI | ↑ | ↑ | ↑ | ↑ |

| STRAIGHT-IN LANDING RWY 06 | | | | STRAIGHT-IN LANDING RWY 06 | | | |
|----------------------------|----------------------|-----------------|-------------|---------------------------------|--|---------------------------------|--|
| ILS DA(H) 837' (200') | | LOC (GS out) | | NDB MDA(H) 1000' (363') | | NDB MDA(H) 1000' (363') | |
| FULL | ALS out | | | ALS out | | ALS out | |
| A | | | | | | | |
| B | | | | | | | |
| C | RVR 720m VIS 800m | 1200m | NOT AUTH | 1200m RVR 1800m VIS 2000m | | 1200m RVR 1800m VIS 2000m | |
| D | | | | 1200m RVR 1500m VIS 1600m | | 1200m RVR 1500m VIS 1600m | |

CHANGES: ATIS.

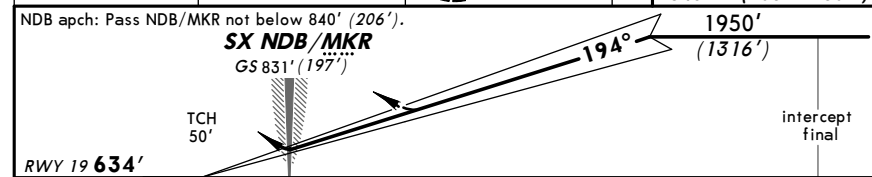
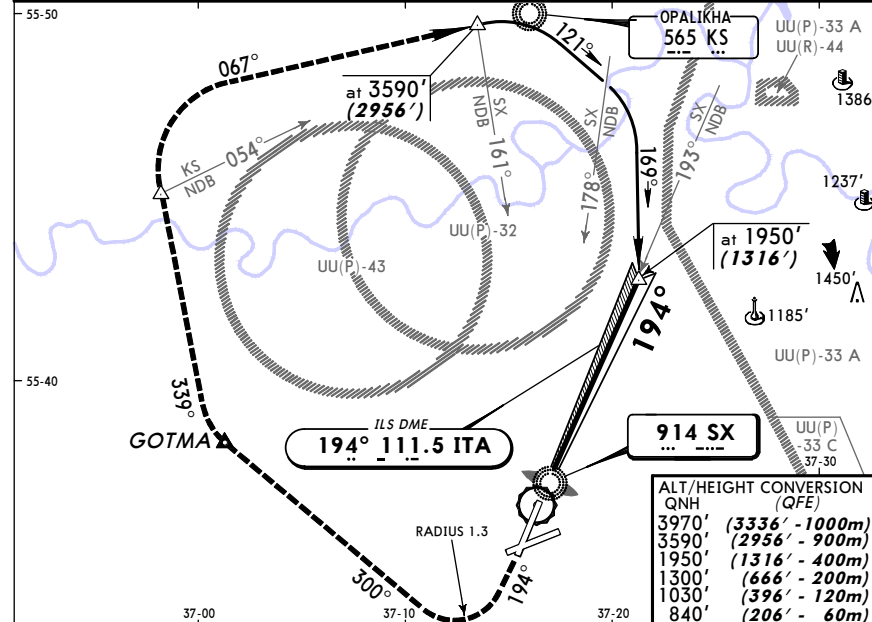
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UUWW/VKO MOSCOW, RUSSIA
VNUKOVO ILS or NDB/MKR Rwy 19

| | | | | | | | |
|---------------------------|---------------------------|------------------------------|--|-------------------------------|-------------------------------|---|--|
| ATIS (Russian) 125.87) | | MOSCOW Approach 3 128.0 | | MOSCOW Approach 4 123.4 | | VNUKOVO Approach 122.3 | |
| VNUKOVO Radar 126.0 | | VNUKOVO Tower (PAR) 118.3 | | VNUKOVO Start(TWR) 118.3 | | Ground 120.45 | |
| LOC ITA 111.5 | Final Apch Crs 194° | No GS published | | ILS DA(H) 834' (200') | Apt Elev 685' RWY 634' |  | |
| NDB SX 914 | | Minimum Alt No FAF | | NDB MDA(H) 1460' (826') | | | |

MISSED APCH: Climb on 194° to 1030' (396'), then turn RIGHT (MAX 160KT) onto 300° climbing to 3590' (2956') to GOTMA, then according to chart.
At 1300' (666'), immediately contact Radar.

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970' (3336')



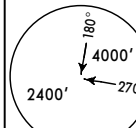
| | | | | | | | | | | | |
|---------------------------------------|-----|-----|-----|-----|-----|-----|----------|-----------------|------|------|---------------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | HIALS-II | 1030' (396') on | 194° | 300° | 3590' (2956') |
| ILS GS 3.00° or NDB Desc Grad 5.2% | 377 | 484 | 538 | 646 | 753 | 861 | PAPI | | | | |

| STRAIGHT-IN LANDING RWY 19 | | | | | |
|----------------------------|----------------------|----------------------|---------------------|-------------|--|
| ILS | | | LOC | | |
| DA(H) 834' (200') | | | MDA(H) 1460' (826') | | |
| FULL | | | ALS out | | |
| A | | | | | |
| B | RVR 550m VIS 800m | RVR 720m VIS 800m | 1200m | NOT AUTH | |
| C | | | | | |
| D | | | | | |

CHANGES: ATIS. ILS DME added.

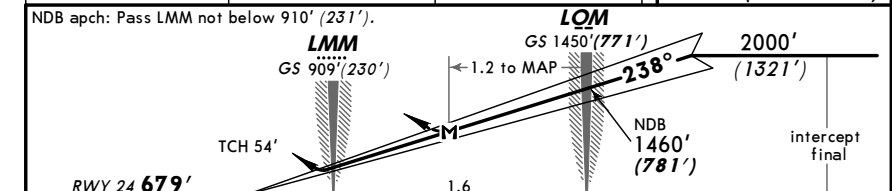
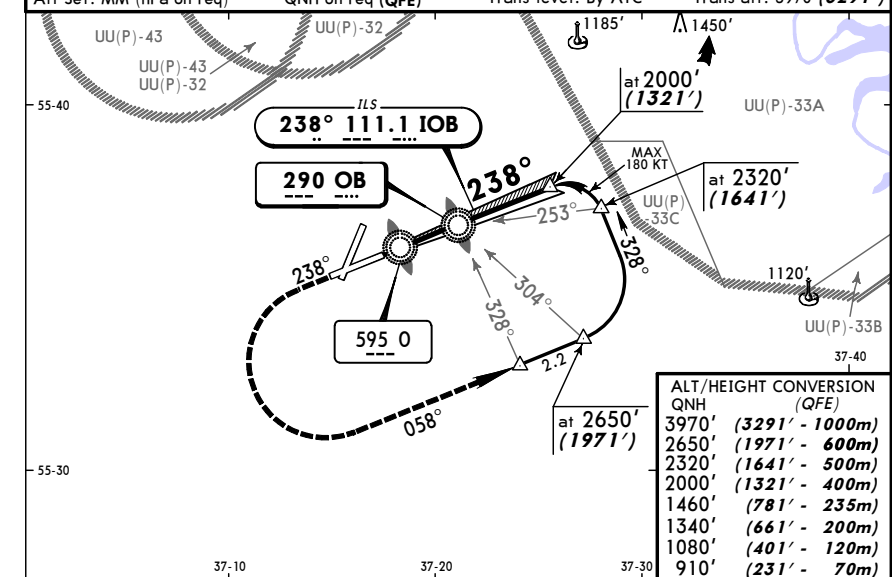
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UUWW/VKO MOSCOW, RUSSIA
VNUKOVO ILS or 2 NDB Rwy 24

| | | | | | | | |
|---------------------------|---------------------------|------------------------------------|--|-------------------------------|-------------------------------|---|--|
| ATIS (Russian) 125.87) | | MOSCOW Approach 3 128.0 | | MOSCOW Approach 4 123.4 | | VNUKOVO Approach 122.3 | |
| VNUKOVO Radar 126.0 | | VNUKOVO Tower (PAR) 118.3 | | VNUKOVO Start(TWR) 118.3 | | Ground 120.45 | |
| LOC IOB 111.1 | Final Apch Crs 238° | GS LOM 1450' (771') | | ILS DA(H) 879' (200') | Apt Elev 685' RWY 679' |  | |
| NDB OB 290 | | Minimum Alt LOM 1460' (781') | | NDB MDA(H) 1060' (381') | | | |

MISSED APCH: Climb on 238° to 1080' (401'), then turn LEFT onto 058° climbing to 2650' (1971'), then according to chart.
At 1340' (661'), immediately contact Radar.

Alt Set: MM (hPa on req) QNH on req (QFE) Trans level: By ATC Trans alt: 3970' (3291')



| | | | | | | | | | | | |
|---------------------------------------|-----|-----|-----|-----|-----|-----|----------|-----------------|------|------|---------------|
| Gnd speed-Kts | 70 | 90 | 100 | 120 | 140 | 160 | HIALS-II | 1080' (401') on | 238° | 058° | 2650' (1971') |
| ILS GS 3.00° or NDB Desc Grad 5.2% | 377 | 484 | 538 | 646 | 753 | 861 | PAPI | | | | |

| STRAIGHT-IN LANDING RWY 24 | | | | | |
|----------------------------|----------------------|----------------------|---------------------|-------------|--|
| ILS | | | LOC | | |
| DA(H) 879' (200') | | | MDA(H) 1060' (381') | | |
| FULL | | | ALS out | | |
| A | | | | | |
| B | RVR 550m VIS 800m | RVR 720m VIS 800m | 1200m | NOT AUTH | |
| C | | | | | |
| D | | | | | |

CHANGES: ATIS.

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VNUKOVO

20 NOV 09 11-4A

MOSCOW, RUSSIA
CAT II ILS Rwy 24

